Trusted networks:
The key to achieve world-class health outcomes on a shoestring

Is it possible to offer world-class healthcare services to 1.3 million people with just US $500 per capita per year in a country going through a major crisis?

A group of leaders gathered in Colombia to answer this question in 2015, with little room to maneuver. The country was going through a difficult peace process with guerilla fighters, the population was migrating towards extreme political poles, the local currency was hitting record lows, and there were mounting doubts about the sustainability of the healthcare sector, with major organizations declaring insolvency.

This book describes the journey of the group, and how betting on trust enabled them to create an integrated network capable of producing impressive results in less than three years. When compared with all of the countries participating in the Organization for Cooperation and Economic Development (OECD), the network was ranked first in terms of the perceived health status of the population it serves and in wait times for cataract surgery, with many healthcare quality indicators in the top 10.

The book also includes an agenda for the future, with areas of improvement of the current efforts, as well as opportunities to create a new approach to integrated networks that go beyond healthcare services to the creation of health and well-being, worldwide.

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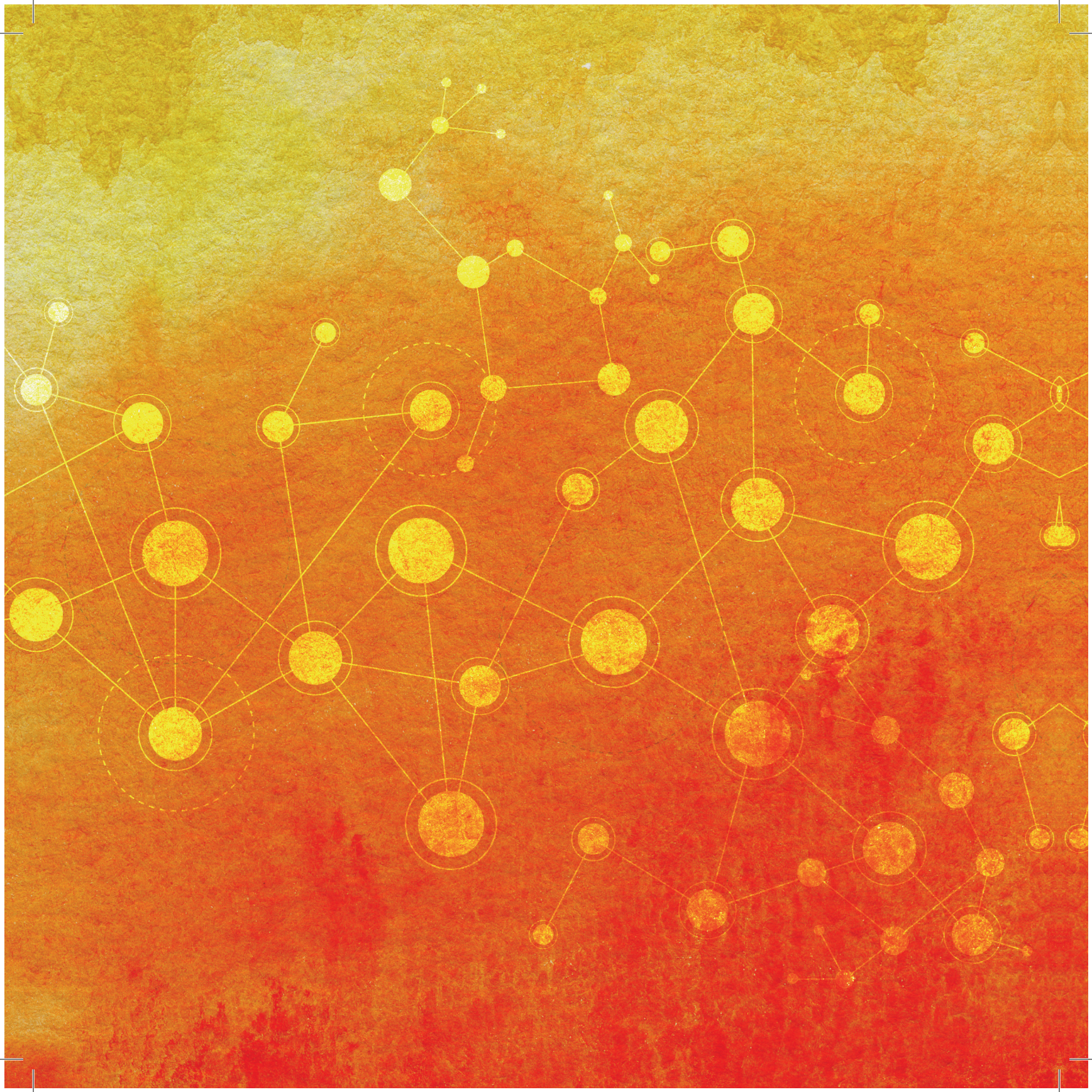

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“For it is mutual trust, even more than mutual interest, that holds human associations together.”

H. L. Mencken

Foreword

Mutual trust is the key element and differentiator of the integrated healthcare services network conceived in 2012 by Compensar, a family compensation fund in Colombia, to serve just over 1,300,000 affiliates. Since then, we have been making efforts to design, implement and consolidate this network, whose birth was inspired by the possibility of guaranteeing universal quality coverage, while overcoming service fragmentation and avoiding duplication of efforts.

To meet the challenges posed by the critical situation of the healthcare system in Colombia the time, and the country at large, we realized from the outset the need to think differently, embracing the principles and methods of adaptive leadership, and how imperative it was to muster the courage needed to break existing paradigms and invite a large number of service providers to pursue a bold shared vision. Together, we positioned trust at the core of the network, understanding it as the belief of each person about the capability and commitment of other members of the network to offer excellent services to our affiliates despite the very uncertain conditions we faced and continue to encounter. As a result, we have shifted from perceiving each other as competitors or individual institutions fulfilling specific roles, to viewing us as links along a single systemic chain of activities for the benefit of our affiliates.

Foreword

As it will be illustrated throughout this book, we have conceived, designed and implemented a management model that allows us to achieve outcomes comparable with those of the most advanced countries in the world, at a fraction of the investment.

Although the progress we have made to date is important and we are satisfied by the results we have obtained so far, there are important areas that still require lots of improvement. While we continue to refine the existing model and to enhance the services we offer, we have recognized how vital it is to integrate services from the social sector, and to engage our affiliates and front-line health professionals as true partners throughout all of the stages of the journey. Together, we will do everything possible to increase our ability to fight diseases with the resources available, and to use our creativity and collective passion to contribute to the emergence of new systems capable of allowing humans to enjoy optimal levels of health and well-being, anywhere and at any time.

Marta Giraldo de Trujillo
Deputy Director of Health
Compensar

Bogotá, December 11, 2018

CEO'S musings and invitation

The publication of this book during Compensar's 40th anniversary creates a special opportunity to celebrate two acts of boldness by those who dreamt about a new benefit society in Colombia in the early 1970s. The first was to conduct research on the services that the population would like to receive from this new entity. This was unthinkable then, given the highly regulated nature of this sector. The second was to act, decisively, upon what the public requested: Access to reliable, affordable and high-quality healthcare for adults in the country. At the time, it was accepted as a fact that meeting the healthcare needs of the adult population was the responsibility of publicly-funded social security institutions, or provided by independent private practitioners or clinics, only accessible to the small group of high-income people in the country. Benefit societies only offered healthcare services to children.

During these 40 years, Compensar has imagined, created, structured and implemented a series of health-related activities, which over time led to the development of an integrated network of services both for adults and children. The most elementary concept of a network is a diverse set of stakeholders, with different characteristics and with different roles, linked by a common objective. This basic concept becomes very complex when applied to health, precisely because of the complexity of health itself and of creating a broad spectrum of interrelated services within a complex socioeconomic, cultural and political environment full of competing interests and misgivings about collaborative work. That is why the creation and cultivation of trust has been fundamental in the construction of the network and in its evolution.

Putting people at the centre of a health service or system is a common purpose so easy to formulate that it is becoming a platitude. Achieving effective health promotion and disease prevention, providing excellent care and opportunities to create, spread and recover optimal levels of health implies a deep commitment to the dignity of human beings, while working in tandem with their hearts and minds to obtain the desired results. This requires to establish a true connection with people in such a way that it becomes a collective responsibility to contribute to each other's health.

It is gratifying to report through this book that our efforts have enabled the creation of integrated healthcare services that meet the famous 'triple aim' as they improve the health of populations, enhance the experience of care for individuals and reduce the per capita cost of health care. While trying to fill the many gaps that still remain open, Compensar has embarked on a new bold adventure: to become a platform for comprehensive human well-being, where individuals, families or companies can find the best way to enhance their lives and capabilities, respecting their own perspectives and values. Carrying this out is a huge task with even more complexity.

Why take more challenges? Because the urgency of the higher purpose of Compensar and its embedded responsibility demands it. In addition, this new impetus is driven by the conviction that past success and current achievements - important and significant as they might be - could not guarantee our relevance and success in the future. Only to the extent that, faithful to the mission, we are able to connect with the heart and expectations of those who have given us their trust, we will continue to be relevant.

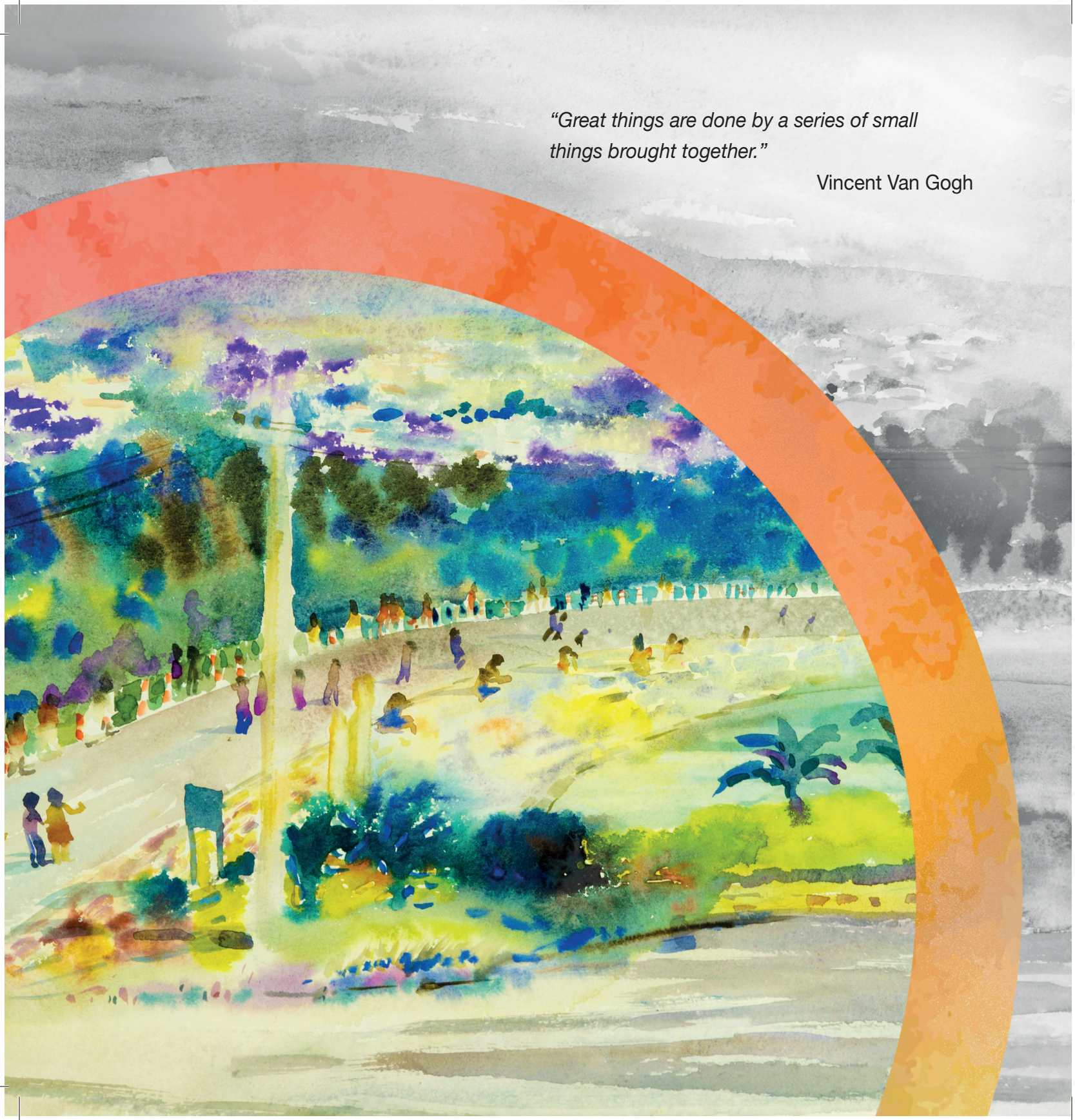
The changing world in which we find ourselves is stimulating and inspiring us to place even greater energy on innovation and adaptation as the essential ingredients to remain relevant in the lives of the people and the communities we serve.

The projects jointly undertaken by Alejandro Jadad, Compensar and our teams provide many opportunities to reflect, to assess, to unlearn and to understand health and well-being in a new and different way. Above all, they have created a renewed sense of confidence and energy in our collective capacity to make the world a better place for all.

We hope you accept this book as an invitation to join forces with us and with many others who believe in the power of trust to drive collective efforts that could enable humanity to enjoy the benefits of a pandemic of health and well-being.

Néstor Rodríguez
CEO, Compensar
Bogotá, November 2, 2018

Introduction



“Great things are done by a series of small things brought together.”

Vincent Van Gogh

Introduction

Is it possible to build a good integrated healthcare network, based on trust, with US $500 per person per year?

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TRUSTED NETWORKS:
THE KEY TO ACHIEVE WORLD-CLASS HEALTH OUTCOMES ON A SHOESTRING

Introduction

This was the bold question that a group of leaders gathered in Bogota, Colombia, asked themselves back in 2015. They had few options left to consider. The country was going through difficult debates about the peace process with guerrilla fighters, the population was migrating towards extreme political poles, the dollar was at record highs, and there were mounting doubts about the sustainability of the healthcare sector in the country, with major organizations declaring insolvency.

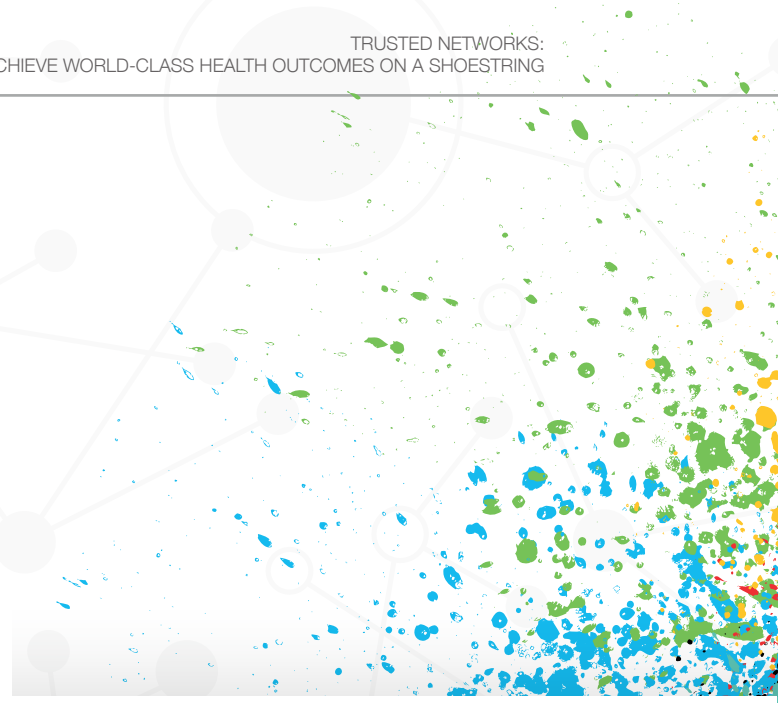
US $500 per person per year. That was the budget available to one insurance organization, known as Compensar EPS, that had committed to serving well a population of 1.3 million people through services outsourced to 35 institutions. An additional challenge was imposed by the fact that such population was intermingled with over 10 million people spread through an area of over 24,000 sq. Km. on the plateau at 9,000 ft above sea level that includes Bogota, the highest megacity in the world (1).

This book describes their journey during the following three years, underscoring how they decided to organize and align a large number of organizations into an integrated network of services based on trust, how they were evaluated, as well as the results they obtained and the lessons they learned, together. It will also outline their efforts to generate clues about how to guide the evolution of entire national healthcare systems. The book also

underscores the desire of this network to become a member of a global community trying to shift the focus of the system from the fight against diseases to the creation of health and well-being, in order to offer people services that truly meet their needs and preferences.

Each of the chapters of the book was designed to be as "future proof" as possible. To achieve this, they were structured along four sections using the following questions as their subtitles: What is the challenge? What is the opportunity? What has been achieved? What needs to be done?

The rest of this chapter is an attempt to provide metalevel answers to such questions, highlighting as many contextual and conceptual elements as possible, while seeking to set the scene for the rest of the book.



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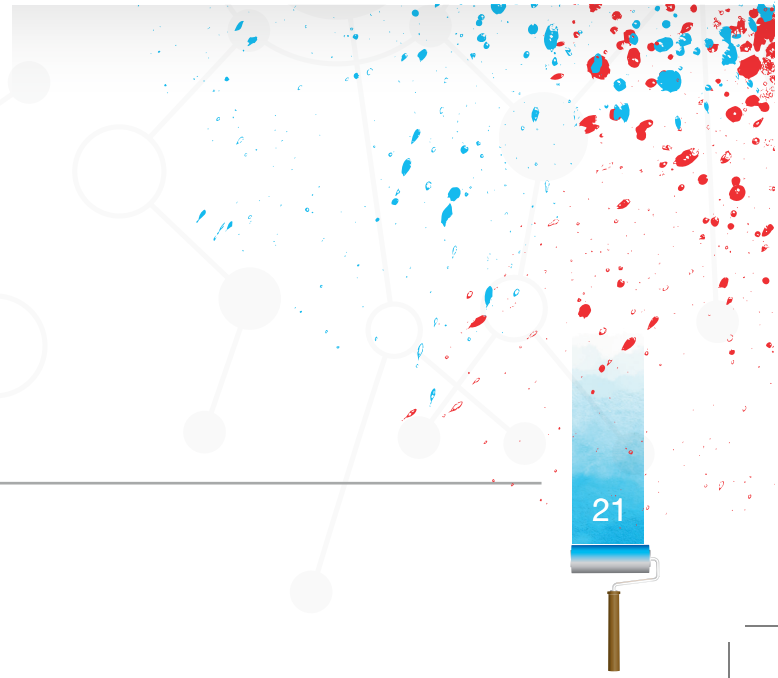


What is the challenge?

Despite the unprecedented level of connectivity that information and communication technologies have given humanity, typical healthcare systems around the world remain fragmented, predominantly institutionalized and focused on "fixing" physical problems, resembling large, dysfunctional collections of repair shop franchises (2). This is the result, to a large extent, of an entrenched reductionist view of people as a collection of body parts that can have faults in their building blocks, be they organs, cells, genes or molecules (3), requiring efforts to "cure", prevent or manage them. This view intensified when it was discovered that antibiotics could control infections, which had been the main cause of human mortality since time immemorial. If we humans could control our main killer, we thought, it should be easy to conquer all of the remaining threats to our lives. This acted as the launching pad for a series of medical wars, inspired by Paul Ehrlich's "magic bullets" (4), with "smart bombs", and "missiles" targeting cancer first, then diabetes, heart disease, obesity, arthritis and dementia (5) and more recently, death (6). As a result, in less than a century, a true disease industrial complex emerged, which has been able to medicalize practically every aspect of human life (7).

Medicalization, and its companion, fragmentation, accelerated with the industrialization of society, and consolidated as the general population transferred to the medical profession the responsibility to manage their health (8). As those changes unfolded, medicine gained increasing power over all phases of our lives, from before birth until the very end, increasing the dominance of the reductionist perspective. As Ivan Illich put it so clearly and poignantly, "Health, or the autonomous power to cope, has been expropriated down to the last breath." (9). This expropriation has been carried out by warriors with progressively greater levels of specialization and by providers that received more than US$ 9 trillion in 2014 alone (10) to fight the

war using weapons of increasing complexity and cost. It is unclear, however, how this extraordinary expense, which represented close to 12% of the world's GDP that same year (11) is actually contributing to human health.

Perhaps the main challenge to determine whether the fabulous amounts of money that go into the healthcare sector is beneficial to health is the lack of indicators that focus on health itself. This is clearly reflected by the way in which the World Health Organization (WHO) - the agency that has been charged with enabling better health for everyone, everywhere (12) - suggests how health services we provide and received throughout the world should be monitored. Of the 100 "core" items included in the "Global Health Indicators", 27 are included in the "health status" category. Of these, 25 relate to mortality or morbidity, and two to fertility. The remaining 73 indicators address risk factors for diseases (n = 21), healthcare service coverage (n = 27) or health system issues (n = 27) that focus on mortality, morbidity, access to services, workforce, information management or financing (13). Because of this disease-focused view of human health, it is unsurprising that the topics and reports that emerge from the WHO, or any other initiative aligned with the control of disease, lead to even more justification for our medical wars (14).

Throwing more money into the battlefield is unlikely to yield better health. As in most war situations, as more funding is allocated to weapons, more powerful players with conflicts of interest - particularly multinational corporations profiting from human suffering - are incentivized to keep the conflict going (15,16).

Perhaps the main challenge to determine whether the fabulous amounts of money that go into the healthcare sector is beneficial to health is the lack of indicators that focus on health itself.

The United States of America, the country that spends the greatest amount in healthcare services in history is a case in point. With over US$ 10,000 per person annually (17), this nation spends at least twice as much as other high-income nations and more than 20 times what Colombia has allocated to each of its citizens. The perverse effect of abundant funding for healthcare services has been clear in report after report over the years, showing that the population of the USA has the lowest life expectancy and the highest infant mortality among its “developed” peers (18).

The relentless expenditure of financial resources to fund a war against disease and death has brought up a terrifying possibility, which remains largely hidden from view: medicine itself may be the main cause of preventable deaths.

In the USA, perhaps the only country for which data have been collected, it was estimated that the number of deaths caused by medicine (also known as “iatrogenic deaths”) could have ranged from 780,000 to one million by 1999 (19,20). Even the lowest estimate exceeded the number of deaths associated with heart disease or cancer that year (19,20). Since then, both medical errors and adverse effects of medication have been identified, separately, as contenders for the title of third and fourth leading causes of overall mortality in the country, responsible for 250,000 and 128,000 avoidable deaths in 2011 and 2013 alone (21,22).

The fragmentation of the human body fed by medicalization and reductionism also occurs at

other levels, which compound the dramatic situation in which we find ourselves now. We have also fragmented the person, using domains such as "the body" and "the mind" promoted by Descartes in the 17th century. This dichotomy initially allowed science to escape the control of the church by leaving the noncorporeal, spiritual realm to it, and keeping the physical world as its own domain (23). As medicine claimed its lineage from science, it retained the body as its scope, leaving anything "non-tangible" out. Therefore, for as long as the mind-body dichotomy has been accepted, knowingly or unwittingly, suffering has been considered subjective and non-physical, and thus outside medicine's responsibility. This may explain, at least in part, why most symptoms such as pain, despite their high prevalence, remain neglected in medical education and clinical practice (24,25). The situation for other less frequent symptoms, even when they can be linked to a body part or system, such as nausea or shortness of breath is even worse. The neglect for symptoms that are perceived as "vague" despite their high prevalence and devastating effects on people's quality of life, such as fatigue, is abysmal (26). These symptoms, just as other "types of suffering", are either ignored, dismissed as "not real" or considered to be a nuisance by most medical practitioners, policy makers, managers and funders of healthcare services, or as the responsibility of others. Members of the so-called "allied healthcare professions" are left with little power to fill the gaps, as they remain dominated by medicine, or find themselves operating in environments where resources are scarce or driven by a medical perspective. This neglect of the intangible sources of suffering, or of what crosses organ, body systems or disease boundaries often results in depersonification, which in turn worsens the suffering experienced by the individuals who endure it and their loved ones.

The disregard for suffering as a core area of interest in medicine can also explain why it was necessary to create specialties such as palliative care, or special places with people interested in relieving it, such as hospices, or special wards in hospitals, or long-term care facilities, where the medical establishment is trying to divert the tsunami that is accompanying the growing population of elderly people, and particularly those living with multiple chronic complex conditions and frailty.

For as long as the mind-body dichotomy has been accepted, knowingly or unwittingly, suffering has been considered subjective and non-physical, and thus outside medicine's responsibility.

The exclusion of suffering by medicine has also compounded fragmentation at a greater and deeper level. In most countries around the world, for instance, the healthcare sector co-exists with a social services sector, which typically operates independently and aims at filling every possible gap that could have been left by the former at any point during a person's productive life (27). The social service apparatus, just like the "medical industrial complex" (7) worked well, meeting their expected goals, for a few decades following the end of the Second World War. As life expectancy expanded, doubling by the end of the 20th century, there was an unplanned swelling in the number of older people with increasingly complex needs, and with no support available from younger relatives or neighbours, who had to be in factories and offices keeping the productive machine alive and growing. From that point on, social services that had been designed mostly with the needs of active workers in mind or budgeted to meet the needs of the small pool of those who retired for a short period before dying, became overwhelmed with people who would be alive for decades, without contributing to the growth of the economy. They also brought with them a gamut of unmet needs that had to be satisfied, including a prolonged dying process full of new needs that had not been anticipated when the social services were originally created, with young people in mind, almost a century before.

In sum, the picture is grim. All that medicine has to offer today is more of the same it offered a century ago: diagnostic tests and interventions designed to repair the body. It is clear that medicine can deal with many important issues, particularly when they are reversible or manageable, mostly through drugs or surgery. In cases of incurable or complex conditions, medicine often leads to increased levels of suffering.

The picture is just as dysfunctional, or even worse, in the social sector, given the dismantling of welfare services that is occurring in places where it is clear that they no longer serve the neoliberal agenda. In very few settings there is commitment to meet the rapidly-growing demand for services capable of filling the gaps created by corporatism and the financialization of life (28), or to relieve the healthcare sector of its fixation with offering medical responses to social problems.

The more a country has followed the path of the most industrialized economies, the closer its population seems to be experiencing the same cruel reality, or even worse, as it will not have a mature healthcare or social sector capable of adapting to its rapidly changing needs. In many places, there are reasonably developed medical services without any social counterparts able to take the overflow, or available communities with the integrity and bandwidth necessary to support their most vulnerable members. Paradoxically, the farther a group finds itself from modernity, the

more likely it might be able to buffer the challenges imposed by the delusional race towards a dream that has clearly turned into a nightmare for those living in seemingly more sophisticated, advanced societies. The ironic corollary is that a person ageing and dying in a remote "backward" village will be more likely to find the kind and level of caring needed than someone in the heart of New York, London, Toronto or Shanghai.

As we march into the middle of the 21st century, we humans are facing unprecedented challenges at all stages of our lives, with the most complex and arduous reserved for the end (29). We are experiencing an existential crisis that threatens our intactness at all levels, from the individual to the species (30).

The time has come to pause, and to be urgently patient, while we figure out the best path and pace forward.

As we march into the middle of the 21st century, we humans are facing unprecedented challenges at all stages of our lives

What is the opportunity?

More than ever, we must identify, connect and scale up efforts to build and preserve the wholeness of our individual and communal lives, and to harness the power of togetherness to enable maximum levels of health and well-being for all.

Some notable efforts are being made to ramp up the emergence of integrated healthcare services throughout the world. In 2016, for instance, all member states of the United Nations adopted the WHO Framework on Integrated People Centred Health Services (31). This is driven by a bold vision for a global strategy that would enable "all people have equal access to quality health services that are co-produced in a way that meets their life course needs and respects social preferences, are coordinated across the continuum of care, and are comprehensive, safe, effective, timely, efficient and acceptable; and all carers are motivated, skilled and operate in a supportive environment" (32).

This framework provides valuable guidance as to how to overcome the fragmentation of most healthcare systems throughout the globe, suggesting five strategies, which could be valuable to any group interested in the creation of an integrated network of services:

- Engaging and empowering people, by providing the opportunity, skills and resources that they need to be articulate and empowered users of health services. This must include underserved and marginalized groups of the population in order to guarantee universal access to services.
- Strengthening governance and accountability, through policy dialogue, formulation and evaluation together with citizens, communities and other stakeholders, while promoting transparency in decision-making, and aligning incentives.
- Reorienting the model of care, by purchasing and providing services that prioritize primary

and community care services and the co-production of health, and promote a shift from inpatient to outpatient and ambulatory care, and to holistic and comprehensive care that supports people's health and well-being.

- Coordinating services, so that the needs and preferences of people at every level of care are met through the integration, alignment and harmonization of different providers and the creation of effective networks involving players in all sectors.

- Creating an enabling environment thanks to processes designed to spur change in legislative frameworks, financial arrangements and incentives, and the reorientation of the workforce and public policy-making, bringing different stakeholders together to promote transformational change.

The vision presented by the WHO is being supported by a global network of collaborators who launched the *IntegratedCare4People* web platform in May 2016. This virtual resource, which is hosted by the Andalusian School of Public Health in Spain, could be of great value to those involved in the creation of integrated healthcare networks as it was designed to support knowledge exchange and interaction among stakeholders around the five strategies suggested by the WHO framework, and to foster the generation and use of the best available knowledge, lessons learnt and tools, and to speed up service transformation (33).

Some notable efforts are being made to ramp up the emergence of integrated healthcare services throughout the world.

Other efforts have focused on the systematic examination of conceptual frameworks, with emphasis on the key dimensions and items of integrated care associated with successful implementation. This has led to the identification of important gaps, as most of the knowledge available derives from studies in specific contexts or conditions (34). Nevertheless, only one of the available approaches appears to have yielded a comprehensive, generic, multi-level and evidence based methodology to examine and evaluate the degree of integration of a network of healthcare services. This approach, known as the Rainbow Model of Integrated Care (RMIC), includes eight domains to assess integrated care across a network and to boost quality improvement strategies simultaneously. The RMIC takes into account a person-focused and a population-based set of guiding principles, vertical and horizontal integration, and six domains of integrated care: clinical, professional, organizational, system, functional and normative. Within this context, integrated care plays an interconnected role at the micro level (clinical integration), the meso level (professional and organisational integration), and the macro level (system integration), with a conceptualization of functional and normative integration as enablers of links among the various levels (35). The model, in turn, was used to develop a measurement tool, known as the RMIC-MT, which to date is the only validated, short and generic instrument that assesses all aspects of integrated care through the entire continuum (36), using a

staff version with 52 items and a patient version with 24 items to be judged using Likert scales that are simple to score (37). This model and its measurement tool create new avenues to conduct comparisons across networks and national boundaries, with emphasis on the achievement of the triple aim: improving the individual experience of care (including quality and satisfaction), improving the health of populations, and reducing per capita cost of care (38,39).

Others have made efforts to summarize ways in which decision makers could guide their activities as they engage in the development, implementation and sustainability of integrated healthcare service networks. These have been grouped into three categories (40):

- **Core factors:** A successfully integrated network will require adequate financing, a high level of readiness to accept changes in clinical cultures, supportive regulation and administrative flexibility to reorganize services and the relationships among the stakeholders.
- **Enabling factors:** These include clinical leadership, a robust information technology infrastructure, shared values and rigorous evaluation methods.
- **Barrier-removing factors:** These include strong coalitions among the leaders of stakeholder groups; the realignment of funding mechanisms; the involvement of primary, community and social care; and the careful selection of target populations. It appears that those that would benefit most from the integration of services are patients with multimorbidity (those living with two or more chronic complex conditions), moderate or severe mental illnesses, and the elderly.

Despite all of these efforts, among many others, to facilitate the emergence of vibrant, truly integrated healthcare networks, we are yet to see one capable of offering services spanning from health promotion and disease prevention, through diagnosis, treatment, disease-management and rehabilitation, to palliative care and bereavement support, in a way that is responsive to the local culture and sensitive to unique individual characteristics, available anywhere, to anyone.

What has been achieved?

Although there are thousands of initiatives throughout the world trying to reach optimal service integration, success stories remain rare, sparse, disconnected and, apart from a few examples, fragile and short-lived. Aware of this, the team that designed and built the integrated network at Compensar EPS, in Colombia, decided to contribute to the existing body of knowledge by setting bold and ambitious goals for its evaluation and evolution; by mustering the strong commitment, collaboration and coordination needed to cross many traditional boundaries; and by trying to overcome the competing interests and perverse incentives that plague most healthcare contexts, hoping to make a worthwhile contribution to their members, the country and the world.

As will be evident throughout most of this book, more than a network of entities, Compensar EPS fostered the creation of a network of people, acting under common objectives and bonded by trust.

The term “EPS” reflects the fact that the organization is a health promoting enterprise (Empresa Promotora de Salud, in Spanish), authorized by the government to sell health service packages to the public and contract such services with healthcare providing organizations (e.g., typically hospitals and clinics), known as IPSs (Institución Prestadora de Servicios in Spanish). These entities were created by law in 1993 to promote universal health coverage to Colombians, under two systems of affiliation: one contributory and one subsidized. The poorest and most vulnerable population that cannot pay for services is assigned to the subsidized system. The guiding principles of the system are efficiency, universality, solidarity, comprehensiveness, unity, and social participation. Compensar EPS is part of the contributory system, as all of its affiliates can afford to pay for their own coverage. As an EPS, Compensar is responsible for planning, organizing,

and carrying out disease management and control, the provision of diagnostic and treatment services, in addition to individual health promotion and disease prevention activities (41).

As mentioned above, to serve its affiliates, in 2014 and 2015 Compensar EPS engaged 35 IPSs to which it proposed the creation of an integrated network of healthcare services including home-based, ambulatory, hospital and emergency services to be provided in Bogota and surrounding municipalities. Together, they established a governance structure, with participation from all of the member organizations, that guided the creation of a collaborative model of care, with detailed functionalities and specifications for each of the components of the network, at all levels. This included a decision to build a highly interoperable information technology platform and to select a set of indicators to assess the evolution of their joint activities.

In January of 2018, the leaders of Compensar EPS decided to assess the impact of their efforts, as objectively as possible, following three complementary evaluation approaches:

- **Intra-network:** This evaluative approach included the views of the leaders of the IPSs about the top benefits they perceive in relation to their participation in the network, and their top priorities for improvement taking into account their experiences with other insurers outside the Compensar EPS network.

- **Extra-network:** As Colombia was accepted as a member of the Organization for Economic Cooperation and Development (OECD) in 2018, this evaluation included comparisons of data from Compensar EPS affiliates with those of all other country members, using indicators that were regarded as under the influence of the network.

- **Integration:** This included the administration of the RMIC-MT to all patients receiving hemodialysis within the Compensar EPS network, and the healthcare professionals involved in their care. The data generated could then be compared with similar groups in at least 20 other countries that have participated in similar exercises.

The network leaders engaged a national and international group of researchers and innovators who could monitor the evaluation process independently, to ensure its transparency and rigour.

In addition, individuals representing each of the stakeholders were invited to describe their experience as contributors to this book, to enable the emergence of a fuller view of the evolution, current status and further development of the network.

Finally, as the history of the evolution of the network and its components was being documented, and data were gathered to assess its impact, simultaneous efforts were made to assess the self-reported levels of health and well-being of employees of Compensar EPS, as well as those of all participants in the evaluation of the integration levels of the network (complementing the assessments obtained with the RMIC-MT), and of a representative sample of affiliates at large. The collection of these data had three overarching purposes: first, self-reports of health and well-being are indicators used by the OECD to compare the performance of its members; second, these measures could have an important steering effect on the network as it tries to shift from its current disease-oriented model of care to one that truly has health at its core (42); and third, the assessments could act as strong foundations for ongoing efforts to bring together the health services and the social services offered by Compensar, the parent company of the EPS. Compensar is one of Colombia's largest "cajas de compensación familiar", a private form of benefit society (or friendly society in British English) that pools financial contributions from over four million affiliates working at more than 86,000 companies in Bogota and surrounding areas, to create, provide and facilitate access to low cost subsidized financial, sports, recreational, educational, housing and transportation services. As it has been shown before, these services could be powerful resources to satisfy the needs of people as they seek to maintain their levels of self-reported health as positive, or to improve them if such levels are negative (43).

What needs to be done?

It is unusual, perhaps unique, to have the opportunity to create, examine and influence the development of a network of integrated healthcare services within a context as favourable as that provided by Compensar in Colombia. To the best of our knowledge, this might be the first time in which it would be possible to align an insurance company, a large group of healthcare service providers spanning the entire spectrum of complexity, and an ecosystem of social services touching the lives of millions of people, simultaneously, with the capacity to collect data at all levels and to engage each of them in systematic efforts to meet their diverse needs, and to achieve optimal levels of health and well-being.

The agenda ahead is rich, and the implications of this work potentially enormous and far reaching.

As a minimum, the experience from this network should be regarded as a valuable case study for anyone interested in integrated care, anywhere in the world, as it is full of insights about how groups with different interests and incentives could align them and work together towards a common goal.

By considering the population served by Compensar EPS, and Compensar as a whole, large and diverse enough to be treated as a hypothetical countries for comparison purposes, this integrated health system experience should also be of value to policy makers trying to figure out how best to realize the vision set by the WHO framework, and to fulfill the dream of universal health coverage and access to optimal services for all of humanity.

The introduction of self-reported health and well-being into the mix opens the door for the emergence of a new approach to system design, development and management. To date, the use of terms such as “health system” or “healthcare system” or “healthcare services” has been disingenuous, in so far as their main indicators have been disease-oriented. By assessing the level of health and well-being from the perspective of the person who receives the services, this network hopes to pave

the way for the creation of a truly health-focused system. By looking at the relationship between self-reported health and self-reported well-being, we aim to be able, at long last, to better understand the relationship between these two constructs, encouraging clinical, policy and financial decisions that lead to their improvement. This could also open new perspectives towards the impact associated with considering health to be the ability of people and communities to adapt and self-manage when facing physical, mental or social challenges (44), rather than a state of complete physical, mental and social well-being, as suggested by the WHO definition (45). The former creates an opportunity for everyone to experience good health, and for people to learn or train to be healthy, with support from others and through access to resources traditionally considered to go beyond the boundaries of the healthcare sector (46).

In addition, by connecting datasets across lines that are usually impenetrable, it will be possible for Compensar to provide a clearer picture of the relationship between assets from the healthcare and social sectors, their impact on indicators related to health and well-being, and the financial implications associated with each of them, alone or combined. This could position Compensar as a special hub within which to conceive, design, develop and refine a true ecosystem in which new types of products, services, processes, systems, business models, research projects and innovation agendas, all geared to the creation and maintenance of positive health and wellbeing, could be possible.

The effort described in this book should also act as a spark:

- To ignite new forms of collaboration among organizations that traditionally compete with each other, nationally and internationally.

- To nurture efforts geared at pushing the envelope continuously in terms of their collective aim of integrating care. In particular, the richness of the relationships and datasets created by Compensar could act as a great substrate to illustrate and validate calls to fulfill and expand the triple aim.

- To position self-reported health and wellbeing as the most important indicators of health system performance.
- To strengthen the connection among healthcare, social services and the community.
- To determine how much health and well-being could be co-created through a network approach to services that engages non-traditional partners.

One of the challenges that the work reported here will need to meet is how to overcome the conscious and unconscious biases that tend to reduce the credibility and impact of research and innovation undertaken outside high-income countries (47). This would be particularly relevant whenever the results emanating from an environment with significantly lower expenditures in healthcare services are assessed to be equivalent or better than those generated in financially much richer contexts. Ideally, this “too good to be true bias” should be tamed and replaced by enthusiasm to embrace new insights that could increase the effectiveness of the relatively limited resources available, and the chances of making it possible for all humans to enjoy the highest possible levels of health and well-being, together.

References

1. **Kraas F, Aggarwal S, Coy M, Mertins G.** Megacities: Our Global Urban Future. Springer Science & Business Media; 2013. 225 p.

2. **Jadad AR.** A view from the Internet age: let's build a health system that meets the needs of the next generation. CMAJ. 2004 Dec 7;171(12):1457–8.

3. **Fuller J.** The new medical model: a renewed challenge for biomedicine. CMAJ. 2017 May 1;189(17):E640–1.

4. **Schwartz RS.** Paul Ehrlich's magic bullets. N Engl J Med. 2004 Mar 11;350(11):1079–80.

5. **Booth FW, Gordon SE, Carlson CJ, Hamilton MT.** Waging war on modern chronic diseases: primary prevention through exercise biology. J Appl Physiol. 2000 Feb;88(2):774–87.

6. **Jha S.** War on Death [Internet]. BMJ. 2015 [cited 2017 Apr 17]. Available from: http://blogs.bmj.com/bmj/2015/03/03/saurabh-jha-war-on-death/

7. **Relman AS.** The new medical-industrial complex. N Engl J Med. 1980 Oct 23;303(17):963–70.

8. **O'Mahony S.** Medical Nemesis 40 years on: the enduring legacy of Ivan Illich. J R Coll Physicians Edinb. 2016 Jun;46(2):134–9.

9. **Illich I.** Medical Nemesis: The Expropriation of Health. Calder & Boyars; 1975. 183 p.

10. **Dieleman JL, Templin T, Sadat N, Reidy P, Chapin A, Foreman K, et al.** National spending on health by source for 184 countries between 2013 and 2040. Lancet. 2016 Jun 18;387(10037):2521–35.

11. **Global GDP 2010-2022 [Internet].** Statista. [cited 2018 Sep 16]. Available from: https://www.statista.com/statistics/268750/global-gross-domestic-product-gdp/

12. **About WHO [Internet].** World Health Organization. [cited 2018 Sep 16]. Available from: http://www.who.int/about-us

13. **WHO.** Global Reference List of 100 Core Health Indicators, 2015 [Internet]. Health statistics and information systems. World Health Organization; 2016 [cited 2017 Apr 17]. Available from: http://www.who.int/healthinfo/indicators/2015/en/

14. **Health Topics [Internet].** 2018 [cited 2018 Sep 16]. Available from: http://www.who.int/health-topics/

15. **The Economist.** The business of conflict [Internet]. The Economist. The Economist; 2000 [cited 2018 Sep 16]. Available from: https://www.economist.com/international/2000/03/02/the-business-of-conflict

16. **Kanagaretnam P, Brown S. Business, Conflict, and Peacebuilding [Internet].** Peacebuilding Centre; 2005. Available from: http://peacebuildingcentre.com/pbc_documents/bus_conf_pb_frmwk.pdf

17. **Anonymous.** National Health Expenditure Projections 2017-2026 [Internet]. Centers for Medicare & Medicaid Services; 2018. Available from: https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/Downloads/ForecastSummary.pdf

18. **Papanicolas I, Woskie LR, Jha AK.** Health Care Spending in the United States and Other High-Income Countries. JAMA. 2018 Mar 13;319(10):1024–39.

19. **Null G, Feldman M, Rasio D, Dean C.** Death by Medicine. Axios Press; 2011.

20. **Null G, Dean C, Feldman M, Rasio D, Smith D.** Death by medicine. J Orthomol Med. 2005;20(1):21–34.

21. **Makary MA, Daniel M.** Medical error-the third leading cause of death in the US. BMJ. 2016 May 3;353:i2139.

22. **Light DW, Lexchin J, Darrow JJ.** Institutional corruption of pharmaceuticals and the myth of safe and effective drugs. J Law Med Ethics. 2013 Autumn;41(3):590–600.

23. **Cassel EJ.** The Nature of Suffering and the Goals of Medicine. New England Journal of Medicine. 1982;306:639–45.

24. **Reville B, Foxwell AM.** The global state of palliative care—progress and challenges in cancer care. Ann Palliat Med. 2014;3(3):129–38.

25. **Global State of Pain Treatment [Internet].** Human Rights Watch; 2011. Available from: https://www.hrw.org/sites/default/files/reports/hhr0511W.pdf

26. **Berger AM, Abernethy AP, Atkinson A, Barsevick AM, Breitbart WS, Cella D, et al.** Cancer-Related Fatigue. J Natl Compr Canc Netw. 2010 Aug 1;8(8):904–31.

27. **Kemp AR.** Death, Dying and Bereavement in a Changing World. Routledge; 2015. 432 p.

28. **Fine B, Saad-Filho A.** Thirteen Things You Need to Know About Neoliberalism. Crit Sociol. 2016;0(0):0896920516655387.

29. **Wilmer SE, Žukauskaitė A.** Resisting Biopolitics: Philosophical, Political, and Performative Strategies. Routledge; 2015. 330 p.

30. **Jadad AR, Enkin MW.** Does humanity need palliative care? European Journal of Palliative Care. 2017 May;

31. **Mensah Abrampah N, Syed SB, Hirschhorn LR, Nambiar B, Iqbal U, Garcia-Elorrio E, et al.** Quality improvement and emerging global health priorities. Int J Qual Health Care. 2018 Apr 20;30(suppl_1):5–9.

32. **Anonymous.** Framework on integrated people-centred health services [Internet]. World Health Organization. World Health Organization; 2018 [cited 2018 Sep 16]. Available from: http://www.who.int/servicedeliverysafety/areas/people-centred-care/en/

33. **Integrated People-centred Health Services [Internet].** Integratedcare4people. [cited 2018 Sep 16]. Available from: https://www.integratedcare4people.org/

34. **González-Ortiz LG, Calciolari S, Goodwin N, Stein V.** The Core Dimensions of Integrated Care: A Literature Review to Support the Development of a Comprehensive Framework for Implementing Integrated Care. Int J Integr Care. 2018 Aug 8;18(3):73.

35. **Valentijn PP.** Rainbow of Chaos: A study into the Theory and Practice of Integrated Primary Care [Internet] [PhD]. Vrijhoef HJM, Ruwaard D, editors. Tilburg University, The Netherlands; 2015. Available from: http://dx.doi.org/10.5334/ijic.2465

36. **Bautista MAC, Nurjono M, Lim YW, Dessers E, Vrijhoef HJ.** Instruments Measuring Integrated Care: A Systematic Review of Measurement Properties. Milbank Q. 2016 Dec;94(4):862–917.

37. **Valentijn PP, Angus L, Boesveld I, Nurjono M, Ruwaard D, Vrijhoef H.** Validating the Rainbow Model of Integrated Care Measurement Tool: results from three pilot studies in The Netherlands, Singapore and Australia. Int J Integr Care. 2017 Jul 11;17(3):91.

38. **Mery G, Majumder S, Brown A, Dobrow MJ.** What do we mean when we talk about the triple aim? A systematic review of evolving definitions and adaptations of the framework at the health system level. Health Policy [Internet]. 2017; Available from: http://www.healthpolicyjrnl.com/article/S0168-8510(17)30089-1/abstract

39. **Berwick DM, Nolan TW, Whittington J.** The triple aim: care, health, and cost. Health Aff. 2008 May;27(3):759–69.

40. **Maruthappu M, Hasan A, Zeltner T.** Enablers and Barriers in Implementing Integrated Care. Health Systems & Reform. 2015 May 19;1(4):250–6.

41. **Anonymous.** Profile of the health services system of Colombia [Internet]. PAHO/WHO; 2002. Available from: http://new.paho.org/hq/dmdocuments/2010/Health_System_Profile-Colombia_2002.pdf

42. **Jadad AR.** Creating a pandemic of health: What is the role of digital technologies? J Public Health Policy. 2016 Nov;37(Suppl 2):260–8.

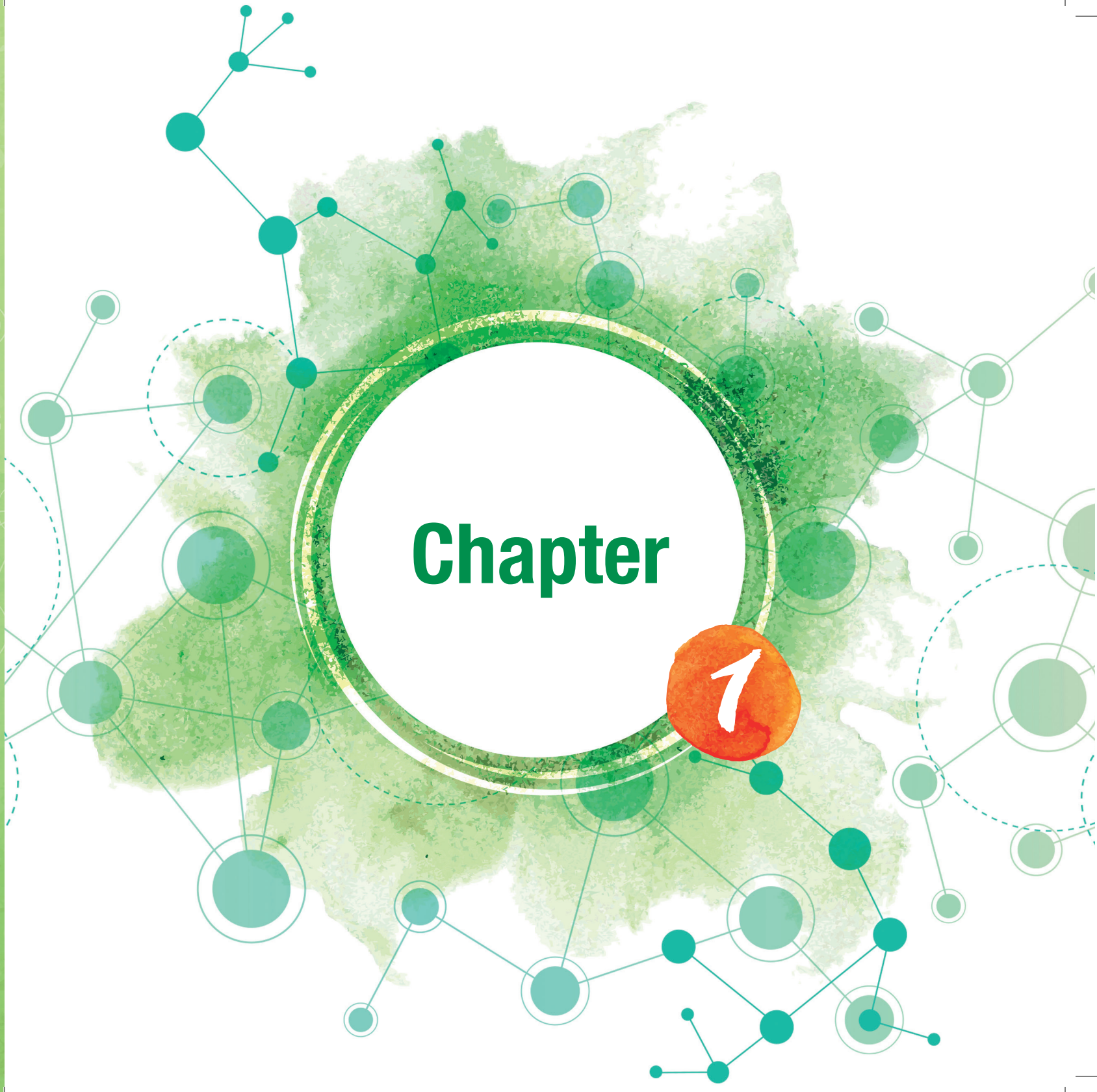
43. **Jadad AR, Arango A, Sepúlveda JD, Espinal S, Rodríguez D, Wind K, editors.** Unleashing a pandemic of health from the workplace: Believing is seeing. Kindle. Beati Inc; 2017. 235 p.

44. **Huber M, Knottnerus JA, Green L, van der Horst H, Jadad AR, Kromhout D, et al.** How should we define health? BMJ. 2011 Jul 26;343:d4163.

45. **Jadad AR, O'Grady L.** How should health be defined? BMJ. 2008 Dec 10;337:a2900.

46. **Kotha R, Jadad AR, Hu H.** Creating a Pandemic of Health: Opportunities and Lessons for a University Initiative at the Intersection of Health, Equity, and Innovation. Harvard Public Health Review. 2015;5:1–8.

47. **Harris M, Marti J, Watt H, Bhatti Y, Macinko J, Darzi AW.** Explicit Bias Toward High-Income-Country Research: A Randomized, Blinded, Crossover Experiment Of English Clinicians. Health Aff . 2017 Nov;36(11):1997–2004.


Chapter
1

Chapter 1

Union is strength: The context and incentives that led to the creation of an integrated network based on trust

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What is the challenge?

In 2012, when the creation of an integrated network of health services began at Compensar, the Colombian health system was facing perhaps the deepest crisis since the massive overhaul that promoted universal coverage 20 years earlier. Costs and the sector deficit were increasing unsustainably; some health indicators were worsening; inequity was growing and the quality of health services was deteriorating. Notoriously, the largest insurance company in the country had been intervened by the government, accused of spending part of its public funding for patient care on a golf course and a luxury hotel, among many other deals that were unrelated to healthcare services. The chaotic situation of that company, which also operated the largest vertically integrated network of providers and medication suppliers in the country, was threatening the viability of the entire national health system, which was on the verge of collapse (1,2). One of the greatest sources of fear was that this was perceived just as the tip of the iceberg, as other insurers (known collectively in Colombia as EPSs, the Spanish acronym for Health Promoting Enterprises) were claiming insolvency, delaying payment to their service providers. This was generating a cascade of problems for healthcare institutions, professionals and suppliers of medical-surgical supplies, and resulting in a

growing number of barriers for the public to access services. It was clear that there was a big difference between providing universal insurance coverage and universal healthcare coverage to the population (3). This was resulting in hundreds of thousands of lawsuits— known as tutelas— brought by individual citizens to the Constitutional Court as a means to get access to necessary health interventions that had been denied by private insurers (4,5). This was largely due to the lack of clarity of the limits of the Compulsory Benefits Plan in Colombia (known as Plan Obligatorio de Salud, or POS in Spanish) and the conception of health as a fundamental right, which led to an exponential growth in the number of services not included in the plan of benefits. To mitigate the increasing levels of inequality that this situation was producing, particularly for low-income individuals and communities, the government had to invest additional resources to correct the deficit generated by this mismatch. As expected, this measure has not corrected the problem and the system continues to experience serious imbalance (3). As these denials are increasingly recognized as a top cause of unnecessary suffering and medical complications, and of premature disability and death, there are growing levels of public dissatisfaction with the system and calls to end the EPSs as financial and administrative intermediaries between providers and the public (6).

The complex and progressively worsening situation of the Colombian health system and the impending unviability of efforts to offer affordable and high-quality universal healthcare services to the population motivated Compensar and its EPS to open a new path that could stem the effects of the crisis on its own finances and preserve the dream. This path was focused on the restoration of trust among providers and the public, which was trending towards the abysmal levels experienced by the United States, where the health insurance sector - with just an 8% approval rating - narrowly missed being rated at the bottom, in league with managed healthcare organizations and telecommunication companies (7% each), oil companies (3%) and tobacco companies (2%) considered to be the least trusted groups in Colombian society (7).

In addition to the systemic difficulties, Compensar EPS recognized that the relationship with its healthcare providers and the public had become transactional, driven by invoicing and payments. This was compounded by the perception of conflict of interest within a zero-sum game in which the gains to the insurer led inevitably to losses for the providers and patients.

What is the opportunity?

A careful analysis of the health and economic outcomes of Compensar EPS led to the creation of a problem tree, which identified several issues that could be improved upon:

- Lack of orientation towards health promotion resulting from an overemphasis on controlling disease
- Poor coordination across all levels of healthcare service provision
- Redundancy of services that did not add value to the affiliates
- Deficient communication between outpatient and hospital institutions, and among health professionals
- Limited information available on the health outcomes generated by each professional and level of care.

Based on this, a process of collaborative reflection was initiated, involving the 35 IPS organizations in charge of in the provision of services to the 1.3 million people affiliated to Compensar EPS. The process enabled three possible future scenarios to be recognized:

- **Protection of the status quo:** This would lead to financial insolvency and a heightened risk of government intervention, or take over by foreign healthcare insurance companies or investment funds.
- **Incremental efforts to improve services and financial margins:** This not sure if the verb tense here is the most appropriate one to the demise of the EPS, as it would be unable to protect itself from new legislation and regulatory frameworks imposed by the government in response to the pressure from the public and providers to eliminate the intermediation by insurers.
- **A radically different approach to service provision:** This could enable Compensar EPS, its group of healthcare providers and its affiliates to join forces and demonstrate that

it was possible to offer high-quality services, achieve high levels of population health and reduce costs. This could then act as an example for other EPSs and the government to follow, preventing the collapse of the system and opening new avenues for its sustainability.

These scenarios made it obvious to all participating parties that the only option left to revert the progressive destruction of value, was to work as an integrated network based on trust, nurtured by aligned interests and incentives, and guided by the principles and practices of adaptive leadership (8).

As main assets, the network would count on hospitals and ambulatory care institutions with solid experience, recognized leaders in the provider sector, and prestigious research centers and universities willing to support them. In addition, the leaders of the organizations embarked in a systematic process to visit and learn about successful experiences of successful integrated networks in other parts of the world, such as the health systems of Catalonia in Spain, British Columbia in Canada and Kaiser Permanente in the USA (9–11). These experiences gave the network fresh ideas and motivated discussions and deliberations about how to incorporate the conceptual and operational strength of primary care services in Catalonia, the robust and articulated structure of information systems and the use of these for Kaiser Permanente health risk management, and the conception of healthy lifestyles and health promotion policies in British Columbia.

As working as an integrated network represented a new way of thinking for the participating institutions, and perhaps for Colombia at large, the group decided to proceed step by step, recognizing the importance of trial and error, building together, as if crafting a piece of art, with a very high degree of motivation and enthusiasm, following a common purpose, learning and unlearning, advancing with reassurance from each other that if some decisions yielded negative results, their course could be adjusted without recrimination. At every point, it was clear that there was one non-negotiable component for the process: the need to protect trust at all costs as the foundation for the network (12–16).

The cultivation of trust throughout the entire process was facilitated through the development of a change management strategy and a tailored adaptive leadership program created by the Leadership and Management Center to promote processes of transformation in society, and to increase the levels of prosperity in Colombia through the power of “collective intelligence” (17).

What has been achieved?

The participatory process, which began in 2013, started with a broad call to a meeting in which the managers and owners of 15 hospitals, 13 outpatient institutions and seven institutions that provided cross-sectional ambulatory services took part. In total, more than 150 people agreed to work for six months on the conception and design of the network and on the processes that would be needed to make it a reality.

One of the first achievements of this group was the explicit declaration of the higher purpose that would guide and inspire the network: to provide a rewarding experience for the public, achieve optimal results in individual and collective health, while achieving financial sustainability.

Once this purpose was established, the work focused on the design of the care model, dividing the specific activities into five groups, focused on: clinical,

operational and services; and modules to promote optimal financial decisions, integrated information management; effective governance and resource mobilization. A weekly agenda was generated for each of the groups and for a monthly follow-up general assembly during which progress was shared with all the participating institutions.

To oversee the activities, a governing body for the network was created, including the leaders of all of the healthcare providing institutions and the insurer. This entity was charged with setting the strategic directions, guaranteeing the adoption of its policies and facilitating the development and scaling up of new projects.

At the outset, it was decided to use one of the outpatient clinics in Bogota, which served 30,000 affiliates, as a pilot site. From there, the work expanded into three 'proto-networks', which became incubators and testing grounds for new ways to serve the population of the south (about 420,000 members), the center (310,000 members) and the north (200,000 members) of the city. Throughout 2014, thanks to this set up, the entire collaborative community was able to witness the emergence of new prototypes of services, contribute to their evaluation, while engaging in adaptive design to identify opportunities to unlearn and learn quickly, while innovating and incorporating new insights into the main process systematically (18).

Following this approach, and with the active participation of Compensar EPS's Affiliates Association (Asociación de Usuarios in Spanish), which had been active since 2009 (19), it was possible to consolidate a shared conceptualization of the network, and gain clarity about the best

way to align the interests of different providers, the insurer, the public and the government; to complete an operational roadmap for the progressive implementation of its components, in order to cover the entire population covered by the EPS (In the following chapter, the structure and functions of the network are described in detail).

To enable rapid scalability of the efforts, a system was designed and put into operation whose purpose was to yield an integrated clinical information record of each patient (SICU, in Spanish) that, thanks to a support platform with high interoperability, allowed storing in a large data warehouse - through an integration model by flat file and web services - the information generated by ambulatory settings, hospitals, emergency services, clinical laboratories, and pathology and diagnostic imaging groups. This information is then available to be consulted by the health teams of all of the institutions, in all settings and by the affiliates themselves.

To strengthen the integration of services on the ground, the health information system supported the creation of a suite of planning tools that enabled the allocation of each of the affiliates to a personal physician, each physician to a primary care team, each team to a primary care ambulatory unit, each unit to the network of healthcare providing organizations, and this network to the EPS. To ensure that the affiliates could have seamless access to the services they require anywhere in the network, an innovation known as "coordination nodes" was introduced to speed up the transitions of care of cases across settings and institutions. This, coupled with a set of indicators chosen by consensus, allows the assessment of the performance of the entire ecosystem from the micro- to the macro level, and the implementation of adjustments in real-enough-time.

Thanks to this process, it was possible to break two vicious circles. First, it became easy to promote teamwork and continuity of service provision among providers operating at different levels of complexity. Second, it was possible to free up the insurer from its original focus on cost control through rate negotiations and audit processes, to devote most of its resources and energy to risk management based on analysis of data from primary care teams, the identification and marking of risk factors, the creation of patient cohorts with different levels of complexity, and the creation and funding of global care packages.

By the end of 2015, aided by the judicious use of leading-edge project management methodology (20), the integrated network model was successfully implemented in Bogotá, covering more than 95% of the affiliates within the Health Benefits Plan. This is the basket of services that in Colombia has been defined as mandatory for all citizens and that includes a wide range of outpatient services - including those of dentistry and rehabilitation, medicines and diagnostic services - and all hospital services (21,22).

A collaborative work dynamic has been instilled and maintained among the network members to ensure that the high levels of trust that have been achieved are sustained and cherished as the network's main asset.

What needs to be done?

Although it is true, as described above, that there important advances have been made in a short period of time, major challenges remain to be addressed. To meet them successfully, the network has agreed to strengthen four fronts:

- The role that affiliates and clinicians (especially specialist physicians) play in the life of the network
- The degree of alignment of the work of technical and scientific teams
- The consolidation of the degree of coordination achieved at all levels
- The reorientation of the network towards the creation and maintenance of health, away from the fight against disease, both among affiliates and all of the people working within the participating institutions

Making affiliates more involved in the conception and design of managed health programs will allow them, together with their clinical team, to agree on the therapeutic plans and be part of the monitoring of their ability to adapt and manage physical, mental or social challenges.

Increasing the involvement of health professionals in the continuous refinement of the model and in the ongoing improvement of the level of coordination across institutional and disciplinary boundaries on a day-to-day basis will be crucial. The network is currently testing new incentives to promote greater levels of engagement and alignment among specialists and primary care teams, based on more explicit accountability for the health outcomes of the assigned population, tools to support clinical decision and economic rewards to reinforce behaviours that lead to improved health status and optimal use of resources.

Another important priority is to work continuously on maintaining what has been achieved so far, since thinking and working as part of integrated networks is foreign to the healthcare system or within the faculties of health sciences. The large number of professionals involved in the network and the high rates of turnover, make it difficult to maintain the vision and modus operandi set by the pioneers of the network, and ensure its sustainability through transfer to new generations of leaders.

Lastly, one of the main goals in the immediate future will be the introduction of self-reported health and well-being as priority indicators in all components of the network. Through this aim, we will try to shift the entire model from its current emphasis on the fight against diseases toward one that promotes optimum levels of health and well-being for its members and its professionals, turning this network into an example for others, contributing to the transformation of Compensar into an ecosystem for the promotion of full and dignified lives, and positioning Colombia as a major world player in the meaningful fulfillment of a pandemic of health and well-being.

References

1. **Bernal O, Forero JC, Forde I.** Colombia's response to healthcare crisis. BMJ. 2012 Feb 23;344:e802.

2. **Webster PC.** Health in Colombia: a system in crisis. CMAJ. 2012 Apr 3;184(6):E289–90.

3. **Londoño E, Dario-Gómez R, de Vos P.** Colombia's health reform: false debates, real imperatives. Lancet. 2010 Mar 6;375(9717):803.

4. **Yamin AE.** Colombia's health reform: false debates, real imperatives. Lancet. 2010 Mar 6;375(9717):803.

5. **Tsai TC.** Second chance for health reform in Colombia. Lancet. 2010 Jan 9;375(9709):109–10.

6. **Londoño E, Molano P.** Are Colombia's reforms enough for a health-care system in crisis? Lancet. 2015 May 16;385(9981):1943.

7. **Oil, Pharmaceutical, Health Insurance, and Tobacco Top The List Of Industries That People Think Should Be More Regulated - The Harris Poll [Internet].** The Harris Poll. 2010 [cited 2018 Oct 19]. Available from: https://theharrispoll.com/a-new-harris-poll-finds-that-the-oil-pharmaceutical-health-insurance-and-tobacco-industries-top-the-list-of-industries-that-people-believe-should-be-more-regulated-these-industries-as-well-as-the/

8. **Heifetz RA, Grashow A, Linsky M.** The Practice of Adaptive Leadership: Tools and Tactics for Changing Your Organization and the World. Harvard Business Press; 2009. 326 p.

9. **Navarrete MLV, Lorenzo IV.** Organizaciones sanitarias integradas: un estudio de casos. In: Organizaciones sanitarias integradas: un estudio de casos. 2009.

10. **Fasano P.** Transforming Health Care: The Financial Impact of Technology, Electronic Tools and Data Mining. John Wiley & Sons; 2013. 240 p.

11. **Hutchison B, Levesque J-F, Strumpf E, Coyle N.** Primary health care in Canada: systems in motion. Milbank Q. 2011 Jun;89(2):256–88.

12. **González-Ortiz LG, Calciolari S, Goodwin N, Stein V.** The Core Dimensions of Integrated Care: A Literature Review to Support the Development of a Comprehensive Framework for Implementing Integrated Care. Int J Integr Care. 2018 Aug 8;18(3):73.

13. **People-centred and integrated health services: an overview of the evidence [Internet].** World Health Organization; 2015 Sep [cited 2018 Sep 9]. Available from: http://www.who.int/servicedeliverysafety/areas/people-centred-care/evidence-overview/en/

14. **Buchanan W, Thuemmler C, Spyra G, Smales A, Prajapati B.** Towards Trust and Governance in Integrated Health and Social Care Platforms. In: Thuemmler C, Bai C, editors. Health 40: How Virtualization and Big Data are Revolutionizing Healthcare. Cham: Springer International Publishing; 2017. p. 219–31.

15. **Meijboom B, de Haan J, Verheyen P.** Networks for integrated care provision: an economic approach based on opportunism and trust. Health Policy. 2004 Jul;69(1):33–43.

16. **Kuhlmann E.** Traces of Doubt and Sources of Trust: Health Professions in an Uncertain Society. Curr Sociol. 2006 Jul 1;54(4):607–20.

17. **Centro de Liderazgo y Gestión [Internet].** Available from: http://www.liderazgoygestion.com/proposito.php

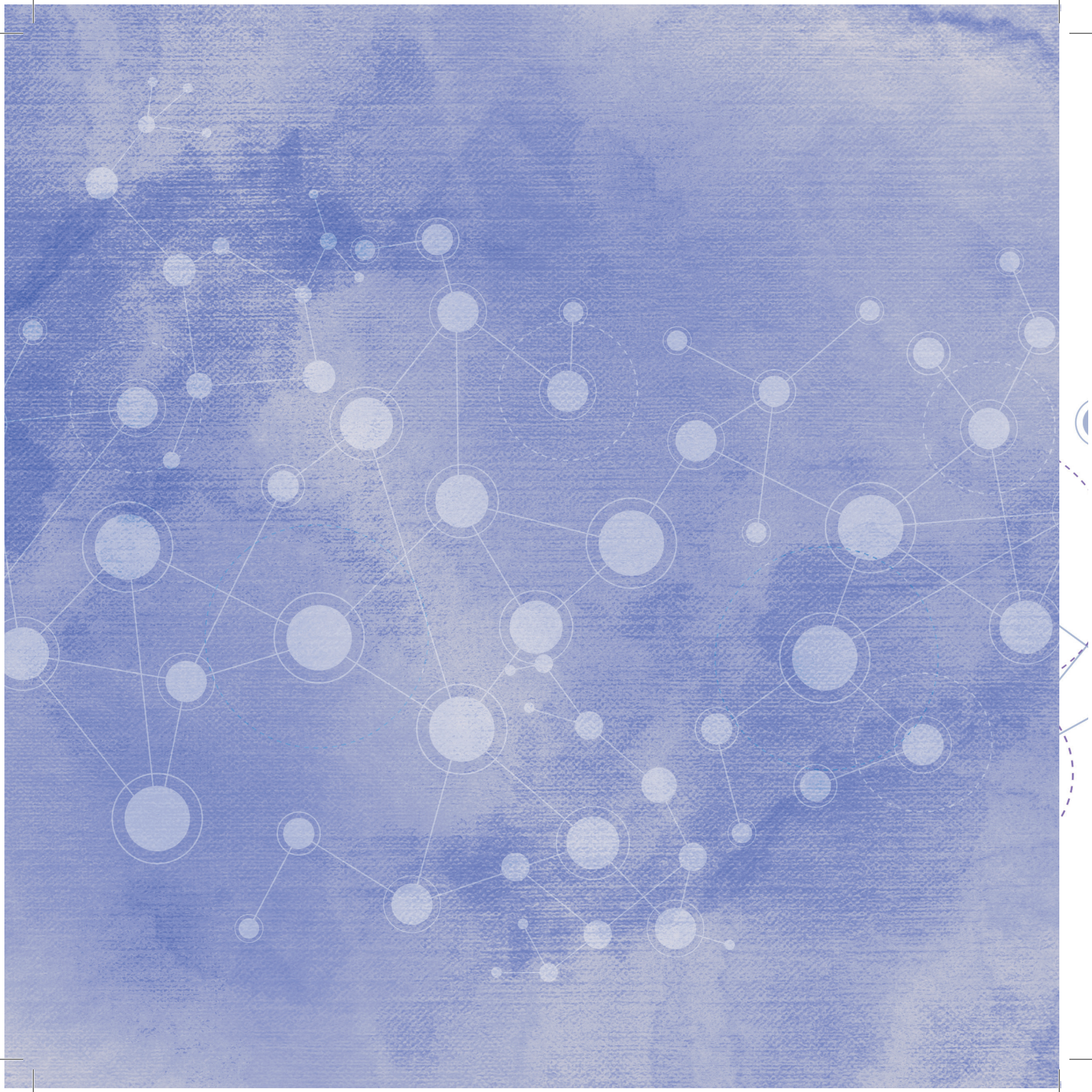
18. **Bernstein M, Linsky M.** Leading change through adaptive design. Change [Internet]. 2016;49. Available from: http://www.lpgn.org/s/SSIR-Adaptive-Design.pdf

19. **Asociación de Usuarios [Internet].** Salud Compensar. [cited 2018 Oct 19]. Available from: https://www.compensar.com/salud/asocUsu.aspx

20. **Project Management Institute, Inc.** A Guide to the Project Management Body of Knowledge (PMBOK Guide) Fourth Edition. 14 Campus Boulevard, Newtown Square Pennsylvania 19073-3299 USA: Project Management Institute, Inc.; 2008.

21. **Ministerio de Salud y Protección Social.** Resolución 5269 de 2017 [Internet]. Dec 22, 2017. Available from: https://cuentadealtocosto.org/site/images/Publicaciones/Normatividad2018/Resoluci%C3%B3n%20No.5269%20de%202017.pdf

22. **Ministerio de Salud y Protección Social.** Resolución 5261 DE 1994 [Internet]. 5261 Aug 5, 1994. Available from: https://www.minsalud.gov.co/Normatividad_Nuevo/RESOLUci%C3%93N%205261%20DE%201994.pdf



Chapter
2

Chapter 2

Building a collaborative culture within an integrated healthcare service network: The role of adaptive leadership

Gustavo Mutis, CEO & Daniel López, Consultant
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Chapter 2

What is the challenge?

The history of humanity has been full of conflicts that have forged our species as we know it (1). It has been then the constant imbalance product of a world in evolution, which has allowed important and profound transformations (2).

One of the great paradoxes that we face today as a society is the divergence between evidence of significant improvement in hard indicators such as poverty, education, health, access to drinking water and literacy, among others, in the past 70 years and the pessimistic perception of the population about the state of the world (3–5).

Society today cries out for structural solutions to the main problems of humanity. Another paradox lies in how we want to find those solutions. Traditionally, we delegate to authority figures or people who proclaim themselves as "experts" and who, with a scent of snakeoil, sell magic solutions to our main challenges, leaving aside the importance of exercising collaborative leadership where the different actors of a system must understand themselves as critical success factors of the solution and transformation (6).

When people understand that no single individual, regardless of the level of charisma, power or influence is capable of transforming a complex reality, and that what was needed all along was collaborative and collective work, frustration often ensues. Unfulfilled promises then lead to even deepening frustration, as they get mixed with the realization that the same problems remain, typically with greater severity. One of the main ironies of the 21st century is that those who are willing to make the decisions that are truly required become unpopular very quickly or ignored, while populists making false promises fill stadiums with crowds full of fear or false hopes.

In the health sector, decision makers have to face the above, especially from the political arena, plus an additional web of daily complex dilemmas. Most of the time, for instance, it is necessary to strike a careful balance between the need to protect health as a fundamental right versus protecting the financial sustainability of the system, or securing return on investments, following a business logic (7). This complexity has led to endless moral and ethical debates, where in general the state and the providers think with utilitarian logic and financial sustainability of the model

around the social agreements enshrined in laws, norms and regulations that rest on compulsory health plans, while citizens and judges tend to focus on rights, regardless of the economic impact of the decisions on the system (8,9). These tensions have hindered the construction of a health system that accounts for the values and interests of all stakeholders, ideally through a transparent and constructive participatory approach (10).

What is the opportunity?

For years, the health sector has followed different conceptual and theoretical frameworks to manage supply efficiently in order to meet an increasingly complex demand that requires high levels of accessibility, continuity, comprehensiveness, quality and problem resolution (11). None of these, however, addresses the relational difficulties that result from structural failures of a system plagued by overpowering personalities, competing interests and lack of trust. This is something that adaptive leadership can address, particularly when it is coupled with Theory U, stretch collaboration and a generative dialogue process (12–15). Such an approach can allow the system as a whole to renounce entrenched paradigms that prevent evolution to a better collective future.

Adaptive leadership provides an ideal overarching framework because it is based on the need to mobilize people to tackle tough challenges and be able to thrive at the same time. It draws from evolutionary biology, as its concept of thriving is based on how living organisms adapt by preserving what is essential for the species in a given environment, discarding what does meet current needs, and making any necessary rearrangements to flourish in new ways (14).

Adaptive leadership provides an ideal overarching framework because it is based on the need to mobilize people to tackle tough challenges

Theory U is based on the observation that we live in a time of massive institutional failure, collectively creating results that nobody wants, and that addressing the biggest problems of our time requires a new economic logic, with a shift from an obsolete "ego-system" focused entirely on the level of individual well-being to an "eco-system" that emphasizes the well-being of the whole (16). The theory also emphasizes that each challenge is unique and requires processes of unlearning, the suspension of paradigms of the past and the capacity to observe reality without value judgments. It also underscores that a new consciousness and a new collective leadership capacity are needed to meet challenges in a more conscious, intentional, and strategic way (17).

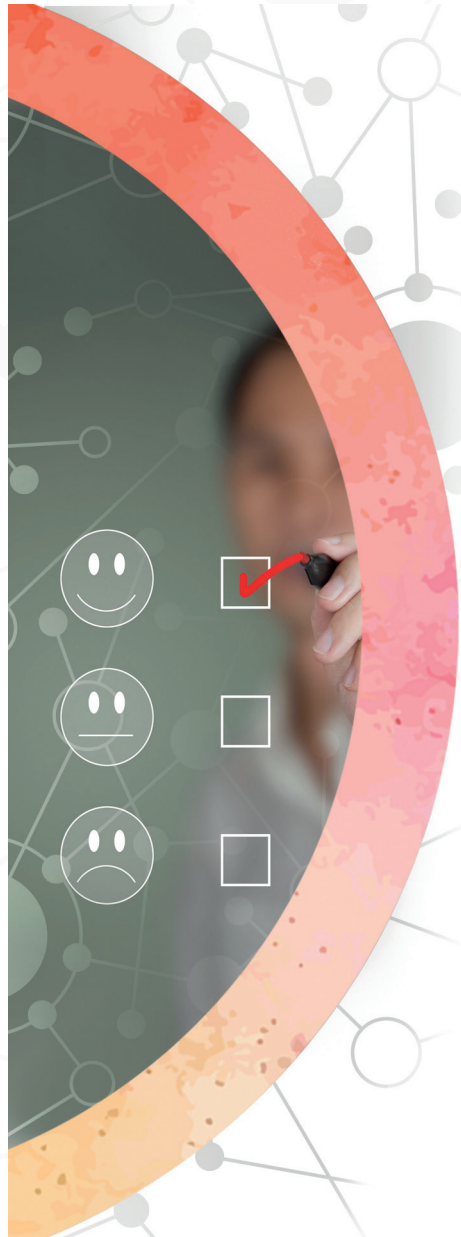
Stretch collaboration is based on the abandon of the assumption of control; acknowledges that harmony and compliance are fantasies; and that groups must instead embrace "messy realities of discord, trial and error and co-creation" (13).

A generative dialogue process, in turn, allows thinking to flow among people with the intention to open new insights into the world, despite formal inequality in their relations. It is based on the notion that dialogue is a discovery process that enables the exploration of each person's beliefs, how their worldviews shape opinions and the level of attachment that they have to such opinions. The intention is to bring people together to talk and interact with the shared purpose to open spaces for new action and to reveal new knowledge that would be impossible to generated individually, breaking down the fragmentation that is typical of group communication and building a sense of coherent wholeness (15,18).

What has been achieved?

Given the reigning crisis in Colombia and the growing tensions among the government, insurers, healthcare providers, the judiciary and the public, the leadership of Compensar EPS engaged the Leadership and Management Center, a national consulting firm focused on transformation processes around seemingly impossible challenges, through the balanced combination of adaptive leadership, Theory U, stretch collaboration and generative dialogue.

At the beginning of the process, the leaders of Compensar EPS, the insurer, and all of the healthcare-providing institutions were exposed to the different aspects of each of the methodological approaches that would need to be brought together to facilitate their transformation process. It was clear from the very beginning that a large portion of the resources they were spending separately was going to auditors appointed to assess the validity of the accounts and medical services provided to the affiliates. This had yielded a very elaborate authorization process designed to preserve the sustainability of the operation of both the insurer and the provider. Regardless of the escalating robustness and complexity of the procedures that the members of the group put in place, there were always disagreements and disputes that weakened their relationship.



One of the questions that guided the dialogue from that point on was: Why do we need to invest millionaire amounts on both sides to verify the practices, procedures and processes we use? The answer that emerged, clearly, was that it was essential to recognize that the driving force for this endless struggle was a lack of trust. Although in their conversations the parties voiced that they trusted each other, their actions were revealing that distrust was greater every day. The elaborate procedures and complex processes that they were putting in place had as their main role to mitigate their discomfort and allow them to operate in relative tranquility.

When the group accepted that this situation was unacceptable and unsustainable, and decided to try to build an integrated network, it was observed that there was a high level of resistance by each of the parties to initiate the structural and systemic transformation that was required to achieve an acceptable level of power equilibrium. There was an understandable high degree of fear of the unknown and hesitation about embarking in an uncertain process designed to collaborate and to construct shared solutions. To achieve this, the process was focused on enabling each party to understand its role in the solution, and to accept its contributions to the problem.

Through the engagement in generative dialogue, the leaders of the budding network agreed that developing a collective leadership made sense, and understood their individual responsibility in the transformation process that they would build together, and that the success of the entire transformation process could not be delegated to a single individual. They accepted the need to focus on a team building effort that would involve unprecedented levels of trust, and that would be guided by their shared commitment to putting the needs of affiliates at the centre, with a focus on joint risk management in order to overcome the great challenges of survival that no single player was likely to achieve separately.

Once this level of understanding and willingness to work together was achieved, the entire group embarked in the necessary steps to facilitate their transformation into a fully functional integrated healthcare network based on trust. In summary, they had to:

- Co-observe the reality of the system from a critical perspective to understand the main symptoms created by the dysfunctional structures and patterns that supported their interactions, and to gain fresh insights about the worldviews that were guiding the decisions of each of the participating institutions.

- Suspend the value judgments that skewed individual perceptions of reality and hindered the transformation process, in order to open their minds to new realities never before imagined.
- Redirect thoughts to a future collectively imagined and perceived as feasible through joint efforts by all participants.
- Let go of habits and customs that hinder transformation
- Welcome the mental structures necessary to evolve systemically.
- Prototype through an iterative process of experimentation around possible solutions to close the gap between the current reality and the desired future. This phase required the development of a high level of trust among the players because of the high risk of failing to obtain the desired outcomes during the implementation of the new ways of doing things. Instead of considering this a failure, trusting each other would facilitate perceiving them as valuable learning opportunities for all.

Through the engagement in generative dialogue, the leaders of the budding network agreed that developing a collective leadership made sense

- Institutionalize those new structures, processes and tools that matched the needs of all the participants, especially with the comfort generated by the conviction that they had been conceived, built and implemented together.

In order to face the process of change that was required, it was necessary to understand the existence of technical and adaptive challenges. The technical challenges were addressed by building on experiences around the creation of successful integrated health networks in other parts of the world, as mentioned in previous chapters, and reports from the literature on integrated care. For the adaptive challenges, it was necessary to understand that both the problem and the solution were unknown, so it was necessary to explore, unlearn, and challenge paradigms and customs to build new realities that could be consistent with the new contexts that the group wished to see materialize in reality. Additionally, it was necessary to map the benefits and losses associated with the transformation for each of the stakeholders participating in the network, to guide with this information the required efforts to change (14).

On April 12, 2018, one of the regular sessions of the governing body of the network was transformed into a larger gathering, with participation from leaders of different divisions of Compensar EPS, as well as the Deputy Directors of Health and Well-Being for Compensar as a whole, to discuss the readiness of the network to share their experiences with the world through this book. The response from the group was unanimously positive and enthusiastically supportive.

What needs to be done?

As the present continues to be full of challenges within the healthcare system and the overall socio-economic and political milieu of Colombia, the process of dialogue and transformation that led to the successful creation of Compensar EPS's integrated healthcare network must be maintained. This requires coupling with ongoing efforts to imagine multiple possible futures and to continue pooling resources to build the conditions needed for the emergence of the most desirable ones.

As will be discussed in the last chapter of the book, the greatest leadership challenge that Compensar is facing is the conceptual and operational construction of a vibrant ecosystem that can harmonize the current emphasis on the fight against diseases with the creation and maintenance of optimal levels of health and well-being through a seamless integration of healthcare and social services, with affiliates playing a prominent role as an equal partners, engaged through constructive and transformative dialogue.

References

1. **McNeil EB.** The nature of human conflict. Prentice-Hall International; 1965.

2. **Reimer LE, Schmitz CL, Janke EM, Askerov A, Strahl BT, Matyók TG.** Transformative Change: An Introduction to Peace and Conflict Studies. Lexington Books; 2015. 240 p.

3. **Norberg J.** Progress: Ten Reasons to Look Forward to the Future. First Trade Paper edition. Oneworld Publications; 2017. 288 p.

4. **Pinker S.** The Better Angels of Our Nature: Why Violence Has Declined. Kindle. Penguin Books; 2011. 844 p.

5. **Burkeman O.** Is the world really better than ever? The Guardian [Internet]. 2017 Jul 28 [cited 2018 Oct 29]; Available from: http://www.theguardian.com/news/2017/jul/28/is-the-world-really-better-than-ever-the-new-optimists

6. **Currie G, Lockett A.** Distributing Leadership in Health and Social Care: Concertive, Conjoint or Collective?: DL in Health and Social Care. International Journal of Management Reviews. 2011 Sep 21;13(3):286–300.

7. **Brody H.** Economism and the commercialization of health care. J Law Med Ethics. 2014 Winter;42(4):501–8.

8. **Biller-Andorno N.** Commercialism and Healthcare. In: ten Have H, editor. Encyclopedia of Global Bioethics. Cham: Springer International Publishing; 2016. p. 1–7.

9. **Garbutt G, Davies P.** Should the practice of medicine be a deontological or utilitarian enterprise? J Med Ethics. 2011 May;37(5):267–70.

10. **Larson LN, Bentley JP, Brenton MA.** Values, participatory democracy, and health care reform. Am J Pharm Educ. 1994;58(4):417–21.

11. **Hans EW, van Houdenhoven M, Hulshof PJH.** A Framework for Healthcare Planning and Control. In: Hall R, editor. Handbook of Healthcare System Scheduling. Boston, MA: Springer US; 2012. p. 303–20.

12. **Scharmer O.** Theory U: Leading from the Future as It Emerges. Berrett-Koehler Publishers; 2009.

13. **Kahane A.** Stretch collaboration: how to work with people you don't agree with or like or trust. Strategy & Leadership. 2017;45(2):42–5.

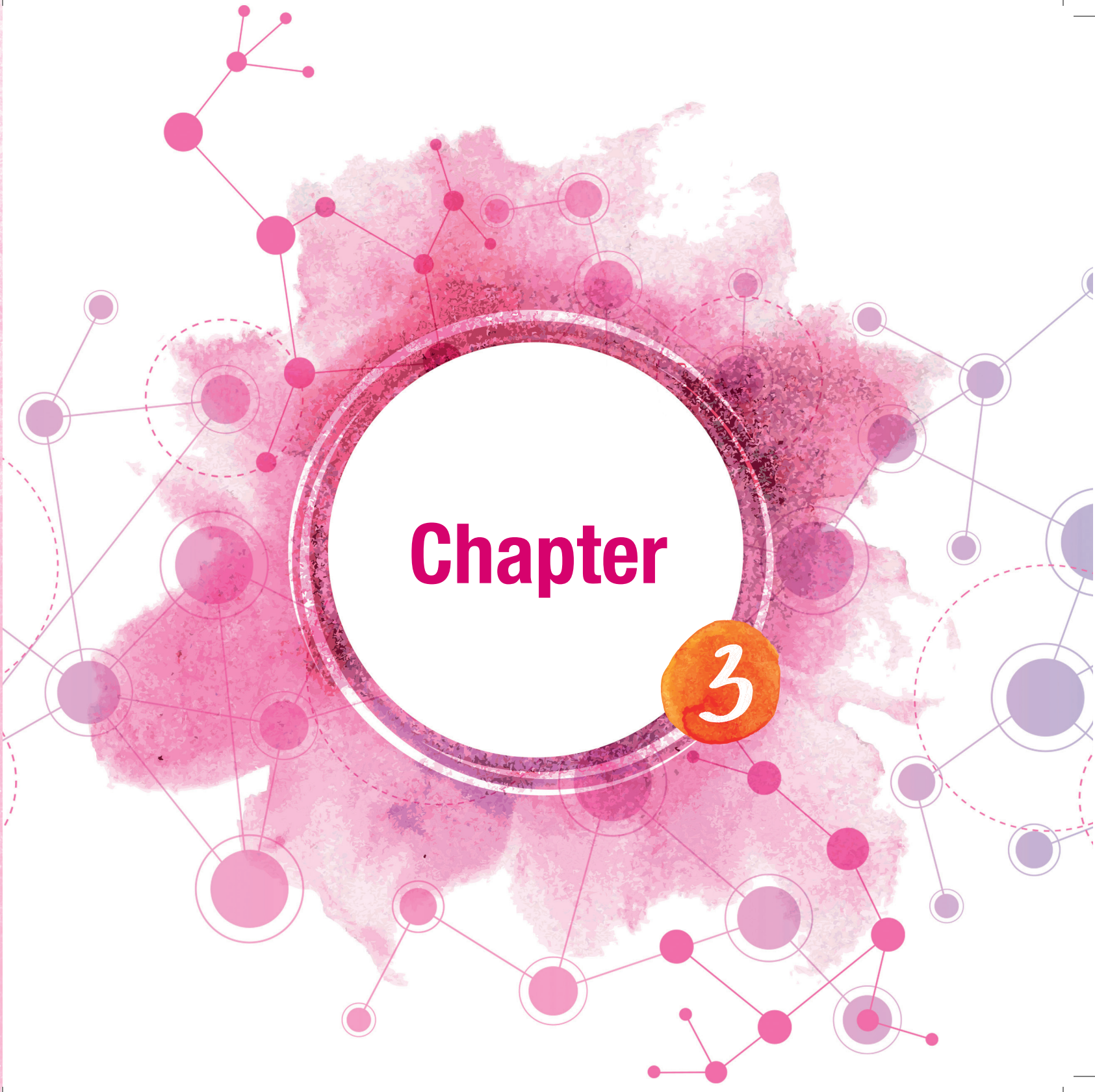
14. **Heifetz RA, Grashow A, Linsky M.** The Practice of Adaptive Leadership: Tools and Tactics for Changing Your Organization and the World. Harvard Business Press; 2009. 326 p.

15. **Gunnlaugson O.** Generative Dialogue as a Transformative Learning Practice in Adult and Higher Education Settings. Journal of Adult and Continuing Education. 2006 May 1;12(1):2–19.

16. **Scharmer O, Kaeufer K.** Leading from the Emerging Future: From Ego-System to Eco-System Economies. Berrett-Koehler Publishers; 2014.

17. **Scharmer O, Yukelson A.** Theory U: from ego-system to eco-system economies. The Journal of Corporate Citizenship. 2015;(58):35–40.

18. **Van Loon R. Creating Conditions for Generative Dialogue.** In: van Loon R, editor. Creating Organizational Value through Dialogical Leadership: Boiling Rice in Still Water. Cham: Springer International Publishing; 2017. p. 67–112.


Chapter
3

Chapter 3

Towards a model for integrated networks that can manage disease, and create health and well-being

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Leader, Health Model
Compensar EPS

Chapter 3

What is the challenge?

Since the early 1930s, it has been noticed that there might be benefits associated with creating groups of primary and specialized care professionals who refer patients to one another for services within the group that follow common governance, infrastructure and finances principles (1). This realization gave birth to what is now known as integrated care, a notion that has become widely accepted as the basis for the organization of healthcare services. Few would advocate today for an approach to service delivery that is fragmented, provided by individual or small groups of physicians who are paid on a fee-for-service basis as the best way to improve the quality of care, particularly of large population groups (2).

One of the biggest barriers faced by anyone interested in creating an integrated care network is to determine what should be meant by 'integrated care', as the enthusiasm for it led to 175 different definitions of the phrase by 2009 (3). Although most of these definitions are similar and refer to continuity of care within the healthcare system, some have an expanded scope that includes social services (e.g. housing and meals). Other definitions emphasize the need to be cost-effective, while

others the applicability of the phrase to patients with complex health needs, or to large population-based efforts.

To overcome this hurdle, three approaches have been proposed. The first, is a process-based approach to the meaning of integration and integrated care that is used by many national governments, which states that: *"Integration is a coherent set of methods and models on the funding, administrative, organisational, service delivery and clinical levels designed to create connectivity, alignment and collaboration within and between the cure and care sectors. The goal of these methods and models is to enhance quality of care and quality of life, consumer satisfaction and system efficiency for patients with complex, long term problems cutting across multiple services, providers and settings. The result of such multi- pronged efforts to promote integration for the benefit of these special patient groups is called 'integrated care"* (4).

The second approach is based and led by the public, focusing on the purpose for integrated care. As it was the result of a year-long national consultation in England, coordinated by National Voices, a patient representative group, it is formulated in the first person singular, thus: *"My care is planned with people who work together to understand me and my carer(s), put me in control, coordinate and deliver services to achieve my best outcomes"* (5).

The third approach, which is health system-based and focuses on the delivery of services, is used by the European office of the World Health Organization (WHO), to emphasize the importance of aligning all functions to bring about large-scale system change, stating that: *"Integrated health services delivery is defined as an approach to strengthen people-centred health systems through the promotion of the comprehensive delivery of quality services across the life-course, designed according to the multidimensional needs of the population and the individual and delivered by a coordinated multidisciplinary team of providers working across settings and levels of care. It should be effectively managed to ensure optimal outcomes and the appropriate use of resources based on the best available evidence, with feedback loops to continuously improve performance and to tackle upstream causes of ill health and to promote well-being through intersectoral and multisectoral actions"* (6).

Implicit to all three of these approaches is the message that integrated care should be centred on the needs of people - individuals, their families and communities - and that this focus should be at the heart of any initiative about the construction and maintenance of networks, particularly to promote the alignment of interests among competing factions (7).

Once conceptual confusion is overcome, it quickly becomes clear that there is almost an equal diversity of models that could be followed to achieve integrated care. Therefore, another important issue to decide which model to choose, while recognizing that one size does not fit all and that there are no 'magic bullet' methods to integrating health services or systems. Instead, building an integrated service network requires to be prepared to generate a tailor-made combination of structures, processes and methods to address the unique needs of a particular community or population (8).

Finally, once the conceptual framework and the building blocks are selected, the creators of models to guide the emergence of integrated care networks must recognize the risk of limiting their activities to the fight against disease within the confines of traditional hospital-centric environments. Therefore, they would need clarity of mind, temperance and resolve if they decide to include social services and even further, engage the community to steer the networks towards the creation of health and well-being for its members and the population they serve.

The creators of models of integrated care networks must recognize the risk of limiting their activities to the fight against disease within the confines of traditional hospital-centric environments.

What is the opportunity?

By starting a new integrated healthcare network, Compensar EPS provides a window into fresh ways to build on the experiences with different models that had been accumulating for more than 80 years around the world. Many of these experiences have been synthesized systematically, facilitating the ongoing selection of components to include in any given context (2,3,6,8–11).

Compensar's decision has also benefited from the awareness of the Colombian government about the sustained trend across the healthcare system to favour the resolution of problems at the tertiary care level, the weakness of the primary care sector and the fragmentation of the models for service provision that are not centered on the needs of the public. In 2011, a new law, Number 1438, was passed to promote a stronger role for primary care, on the basis of "the intersectoral coordination strategy that would allow comprehensive and integrated care, from public health, health promotion, disease prevention, diagnosis, treatment, rehabilitation of patients at all levels of complexity in order to guarantee a higher level of well-being among the public, without prejudice to the legal competences of each of the stakeholders of the health system" (12).

This backdrop, which became even more favourable with the approval of another law specifically focused on the promotion of integrated health networks in Colombia (13), created an even more fertile ground for Compensar EPS - and the leaders of the 35 organizations that expressed a strong interest in co-creating a network for healthcare service provision - to become an example of collaborative work leading to the successful alignment of activities across traditional boundaries with a common goal to offer optimal levels of care to the more than 1.4 million people they had committed to serve. This new network also offers a unique set of conditions to learn about:

- The role that trust can play within a highly competitive and tense environment, plagued by financial constraints and high pressure (14–17).
- The best path to reach agreement around the principles and values that would ensure transparent and effective governance (18,19).

- How to clarify the rules that would guide new relationships, in keeping with a co-created superior purpose: “To provide a rewarding experience to the population, while achieving adequate individual and collective health outcomes and financial sustainability”.

- How to set anchors for the rest of the network during its development, such as a holistic approach to all aspects of a person’s life (physical, mental and social), strong emphasis on health determinants, a user-centred approach to design and development of any element, tools to promote continuity of care across multiple settings, a personal physician for each affiliate, as a gateway, allowing to plan and coordinate the care processes from primary care to more complex levels, fluid communication channels between professionals and institutions to allow the co-creation of solutions by inter-institutional teams, and an information system designed to integrate all types of information, while allowing agile and safe access by any authorized person from any point, at any time.

- The best approaches to overcome technical and adaptive hurdles, to reach optimal levels of alignment among the different institutions, to craft agreed clinical practice guidelines and expert consensus statements in order to unify criteria and reduce the variability in practice, and to ensure the continuum of care as affiliates move from one level of complexity or setting to another, while pursuing a single management plan for each person.

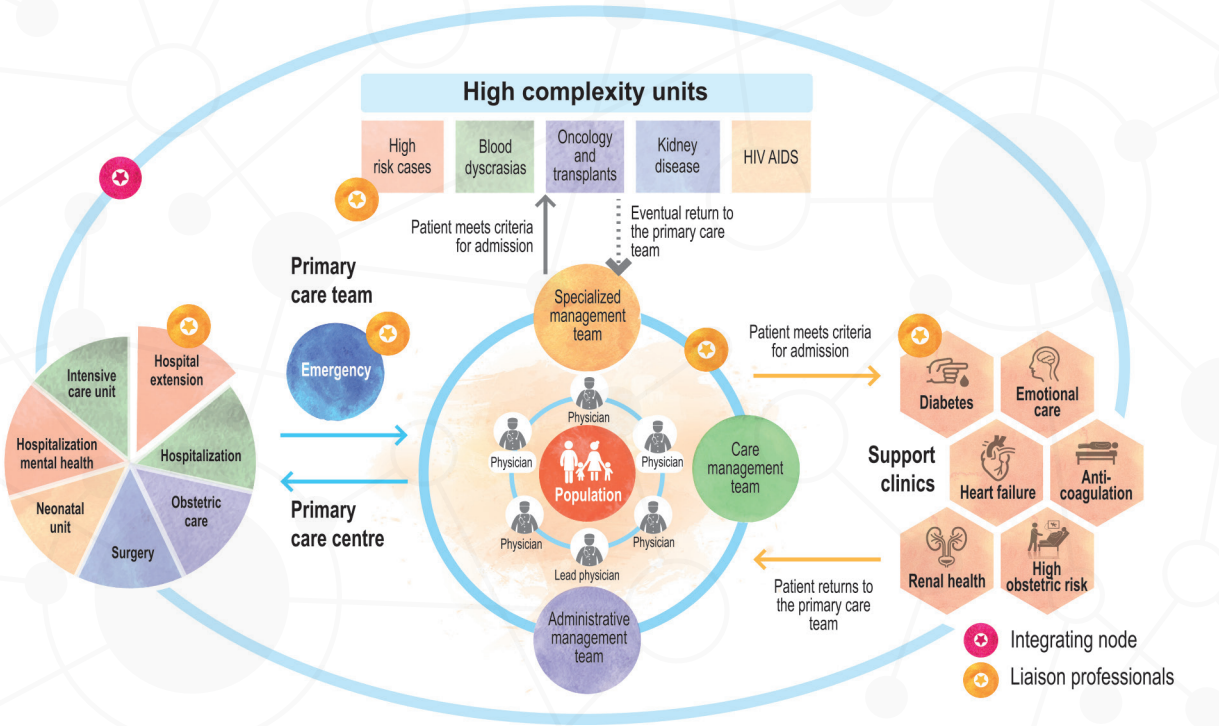
In sum, this experience provides a window into new ways for members of a network to learn together, to build collective skills for resilient teamwork, and to bring about the cultural change that is needed to provide optimally integrated healthcare services under heavy political, financial and public pressure. This network is also a potentially valuable sandbox for the enrichment of the traditional disease-oriented approaches to risk management and service provision with new tools, services, processes and models designed to optimize the levels of health and well-being of its stakeholders and the public at large (20–22).

What has been achieved?

Since 2012, Compensar EPS and the group of institutions that provide healthcare services to its affiliates have collaborated in the creation of a care model to guide service provision throughout the entire network (Figure 3.1). Its main goal is ensuring multidisciplinary and resolutive primary units, specialists and aligned hospital providers, all supported by an operational coordination mechanism (known as the 'integration node'), an information system and technological tools for risk management.

Figure 3.1.

Compensar's Integrated Network Model



Care coordination is a fundamental element that allows cases to flow without difficulties within the network. o coordinate the operation, the network relies on two key players within the integration node: a node coordinator and a liaison professional.

The node coordinators operate from within Compensar, the insurer, while the liaison professionals are employees of the healthcare-providing institutions. Together, they guarantee timely access to services and continuity of care according to the rest of the model. The liaison professionals use a peer-to-peer approach to problem resolution and are fully empowered to escalate a particular issue that they cannot address among them to the node coordinator.

A circumscribed sub-network was created for each territory in which Compensar EPS operates, designed to respond through a portfolio of services matching the needs of the affiliated population. Within each sub-network, primary care units act as the gateways to the overall network, allowing the coordination of healthcare services, the promotion of healthy habits and the management of the risks of the assigned population. Each of the affiliates can choose the most convenient primary care unit, whether because it is close to their home or their workplace, and can change it whenever they consider it appropriate. Thanks to this arrangement, most of the care needs of affiliates are dealt with at this level, including the resolution of acute events and the management of chronic diseases. Whenever the local resolutive capacity is reached, the primary care units coordinate referrals to more specialized services within or outside the corresponding territory.

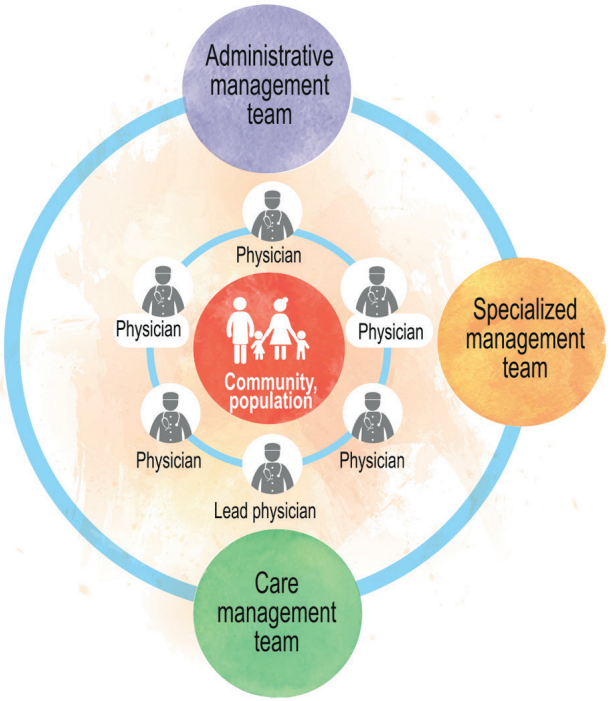
Within the primary care units, teams of health professionals were assembled into more basic sub-units, made up of personal physicians, nurses, nutritionists, psychologists, social workers and therapists, supported by specialists in pediatrics, obstetrics & gynecology and internal medicine. The personal physician focuses on the provision of comprehensive care and assertive communication geared at building a relationship of trust with a population of 2,500 to 3,000 affiliates and functions as the most basic component of the network.

The personal physician is a general practitioner, with activities centred on three main responsibilities: The promotion of healthy lifestyles, the timely identification of health risks and the prompt resolution of the most frequent health problems. Affiliates can choose and change personal physicians at will, without any restriction.

For the development of their activities, the personal physicians are grouped in primary care teams (Equipos de atención primaria, or EAP, in Spanish) that include interdisciplinary clinical and administrative staff, are in charge of approximately 18,000 members, and constitute the functional units for risk management across the network (Figure 3.2).

Figure 3.2.

Primary Care Team Configuration



Personal physician team:
- Personal physician
- Team leader

Care management team:
- Nurse-led programs and cohorts
- Social work
- Therapies
- Nutrition and psychology
- Nursing assistant
- Dentistry

Specialized management team:
- Family medicine
- Pediatrics
- Internal medicine
- Gynecology

Administrative management team:
- Customer service assistant

The typical configuration of each primary care team involves:

- A care management sub-team, which consists of nurses responsible for the coordination of health promotion and disease prevention programs, a nutritionist, a psychologist (who leads self-management initiatives for patients with chronic conditions who require support to adhere to therapy), a social worker, a nursing assistant (who operates as case manager, following up individual cases) and other therapists.

- A specialized management sub-team, which involves referring specialists (Family medicine, internal medicine, gynecology & obstetrics and pediatrics) who devote their energy to supporting the personal physicians in each unit during the management of complex cases.

- An administrative management sub-team, which includes customer service assistants, staff members who schedule and promote opportune access to services and the completion of management plans. Whenever services are unavailable locally, they register the cases in the portal of the network, and submits an application for their escalation with support from the central administrative team.

The personal physicians are required by law to deal with clinical issues within pre-established periods of time. For this purpose, the network offers spaces for interaction and dialogue with other specialists, technological tools for risk management and population stratification, and support for the analysis of patients with unfavorable outcomes such as non-compliance with therapeutic goals or hospitalization. Whenever a patient is discharged from hospital, the primary care team becomes responsible for the continuity of the therapeutic plan. The internist in each team acts as the link with other specialists.

Additionally, specialists support decision boards, knowledge management with professionals and patients, and the review or preparation of clinical guidelines and pathways. There are additional collaborative teams aligned around common health outcomes and comprehensive case management. For instance, physiatry interacts with orthopedics, neurology and rheumatology to form an axis of rehabilitation.

When the conditions of the patient or the severity of the disease exceed the level of resolutivity of the primary care units, management is carried out

by highly specialized teams called 'high complexity units', which care for complex patients, especially those living with HIV/AIDS, hemophilia, cancer or advanced heart disease. Their goal is to optimize health outcomes and the use of resources.

The primary care units also have full access to a collection of traditional hospital services and a 'hospital extension service', which operates as a hospital-at-home program. Both are charged with managing affiliates with acute conditions or complex chronic conditions that could not be managed at the primary care level. The extension service is run by a core team created by Compensar EPS that includes a physician leader with post-secondary education in public health, three nurses and a social worker. Their main responsibility is to oversee and align the activities of a collective of privately-run organizations that provide the direct hospital-at-home services to the affiliates. Patients could be transferred from a hospital facility; referred by their primary care team; or discharged home directly from emergency rooms, bypassing entirely the traditional hospital setting.

The extension service also acts as an extramural complement to hospital services, by providing care to patients with chronic conditions that due to their functional status are unable to attend outpatient services. There they are served by an interdisciplinary team that supports patients and caregivers, using services distributed by geographic zones and that are integrated with those offered by the other institutions of the network.

In addition to traditional hospital beds, there are 'transition units' devoted to accompanying the patients that are transferred across institutions of the network to promote their comfort and prevent unnecessary readmissions or emergency room visits, to avoid duplication of efforts, to ensure that hospital staff access all of the relevant clinical information and risk management tools, to provide clear information to the patients and caregivers during the hospitalization period, and to ensure smooth transfer at the time of discharge to the primary care teams to continue the management plan.

As will be described in detail elsewhere, another key component of the network model is its information system, which includes co-created platforms and tools designed to support all of the decisions that are made at each step of the journey of the affiliates. This system has played an important role in the reduction of the time that is devoted to data collection and administrative tasks, opening more room for the improvement of care processes and services.

The model also supports a 'knowledge management node', which was constituted to identify and collate the questions that arise from the

network, and coordinate all sources of information and analytical infrastructure to generate new insights from the daily work of all stakeholders, and use them to improve care and develop new products and services. The node also includes a platform known as "Alexandria" (Alejandría, in Spanish), which assists the exchange the distribution of content and the sharing of experiences across the entire network, access to the scientific literature, clinical guidelines and carepaths, and support to health technology assessments, research protocols and proposals for innovation.

To monitor the performance of the network, the model guided the selection of a set of indicators agreed upon by all of its members, which are grouped into those that focus on operational aspects, reflecting the degree of implementation of the network; on the use of resources, which evaluate the optimal provision of services; and on health outcomes and affiliate experience. Together, they align to improve the likelihood of achieving the triple aim (23).

As the network becomes robust, its leadership has used new indicators of performance to compare it with that of entire countries, such as those included as members of the Organisation for Economic Co-operation and Development (OECD). The results, which are described in a separate chapter of this book, indicate that the network nurtured by Compensar EPS since 2012 could well be part of this club, with some indicators exceeding what would be expected with an investment of around US$500 per affiliate per year.

The main lesson learned all along is that a complex network is not built by decree. It emerges through self-regulation and cooperation among insurers, providers and affiliates willing to trust each other and committed to achieve a common goal.

As the network becomes robust, its leadership has used new indicators of performance to compare it with that of entire countries.

What needs to be done?

As the network shows signs of maturity in relation to the management of risk and the fight against diseases, it is becoming evident that there are major opportunities for improvement that require a similar level of attention and commitment by all of its members.

The first opportunity for the network relates to the development of new services based on the conceptualization of health as the ability to adapt and manage the physical, mental or social challenges that are an inevitable aspect of human life (24). As noted throughout this book, this will involve a major culture shift from a medicalized approach to health and health care to one that is better aligned with the social needs of the population, and the principles and aspirations of health promotion and salutogenesis (25).

A second major avenue for improvement is a greater level of alignment and integration with the myriad services for the promotion of well-being that are available through Compensar, the parent organization of the insurer at the heart of the network. The recognition of an unparalleled opportunity to integrate health and well-being services within this ecosystem of services has led to the creation of new programs involving teams of professionals willing to operate in a transdisciplinary mode to learn from each other and the affiliates they serve in order to generate entire new suites of products and services that could be better aligned with the needs and expectations of the population.

The above has made visible many opportunities for greater engagement of the community at large, in particular through the Affiliates Association and the populations served by the teams at Compensar that are devoted to the promotion of well-being. This realization has motivated collaborative projects in large housing projects around Bogotá, which seek to transcending the physical walls and services of the institutions participating in the network to become

present, as true partners, in schools, workplaces and households. Together, we are exploring new ways to identify and mobilize resources that are available in abundance within our living environments, to enrich the network and strengthen its ability to promote optimal levels of health and well-being for all.

Last and certainly not least, all of the members of the network have recognized that the model needs to be enriched with components that draw everyone's attention to the vital importance of ensuring that every professional who serves our affiliates must be a living example of how to achieve optimal levels of health and well-being. Thus, we have made a collective commitment to building assessment tools and support services at all levels, to ensure that we are good examples for society of the beneficial effects we seek to achieve through the network.

Ensuring that every professional who serves our affiliates must be a living example of how to achieve optimal levels of health and well-being.

References

1. **Falk IS, Rorem CR, Ring.** The costs of medical care: a summary of investigations on the economic aspects of the prevention and care of illness. University of Chicago Press; 1933.

2. **McCarthy D.** Integrated Healthcare Delivery Models in an Era of Reform. In: Shiver J, Cantiello J, editors. Managing Integrated Health Systems. 2016.

3. **Armitage GD, Suter E, Oelke ND, Adair CE.** Health systems integration: state of the evidence. Int J Integr Care. 2009 Jun 17;9:e82.

4. **Kodner DL, Spreeuwenberg C.** Integrated care: meaning, logic, applications, and implications--a discussion paper. Int J Integr Care. 2002;2:e12.

5. **Redding D.** The narrative for person-centred coordinated care. Int J Integr Care [Internet]. 2014 Jul 22 [cited 2018 Oct 23]; Available from: https://www.emeraldinsight.com/doi/10.1108/JICA-06-2013-0018

6. **Anonymous.** Strengthening people-centred health systems in the WHO European Region: framework for action on integrated health services delivery [Internet]. World Health Organization Regional Office for Europe; 2016. Available from: http://www.euro.who.int/__data/assets/pdf_file/0004/315787/66wd15e_FFA_IHSD_160535.pdf?ua=1

7. **Ham C, Walsh N.** Making integrated care happen at scale and pace. London: The King's Fund [Internet]. 2013; Available from: https://www.kingsfund.org.uk/sites/files/kf/field/field_publication_file/making-integrated-care-happen-kingsfund-mar13.pdf

8. **Shaw S, Rosen R, Rumbold B.** What is integrated care? [Internet]. Nuffield Trust; 2011. Available from: https://www.nuffieldtrust.org.uk/files/2017-01/what-is-integrated-care-report-web-final.pdf

9. **Curry N, Ham C.** Clinical and service integration: The route to improved outcomes [Internet]. The King's Fund; 2010 Nov [cited 2018 Oct 23]. Available from: https://www.kingsfund.org.uk/publications/clinical-and-service-integration

10. **Baxter S, Johnson M, Chambers D, Sutton A, Goyder E, Booth A.** Understanding new models of integrated care in developed countries: a systematic review. Southampton (UK): NIHR Journals Library; 2018.

11. **Steenkamer BM, Drewes HW, Heijink R, Baan CA, Struijs JN.** Defining Population Health Management: A Scoping Review of the Literature. Popul Health Manag. 2017 Feb;20(1):74–85.

12. **Franco-Giraldo Á.** La última reforma del sistema general de seguridad social en salud Colombiano. Revista de Salud Pública. 2012;14(5):865–77.

13. **MINSALUD.** Política de Atención Integral en Salud [Internet]. 2016 [cited 2018 Oct 24]. Available from: https://www.minsalud.gov.co/Paginas/politica-integral-de-atencion-en-salud.aspx

14. **Tsai TC.** Second chance for health reform in Colombia. Lancet. 2010;375(9709):109–10.

15. **Yamin AE.** Colombia's health reform: false debates, real imperatives. Lancet. 2010 Mar 6;375(9717):803.

16. **Londoño E, Dario-Gómez R, de Vos P.** Colombia's health reform: false debates, real imperatives. Lancet. 2010 Mar 6;375(9717):803.

17. **Londoño E, Molano P.** Are Colombia's reforms enough for a health-care system in crisis? Lancet. 2015 May 16;385(9981):1943.

18. **Goodwin N.** Are networks the answer to achieving integrated care? J Health Serv Res Policy. 2008 Apr;13(2):58–60.

19. **Montenegro H, Levcovitz E, Holder R, Ruales J, Suarez J.** Integrated health service delivery networks: concepts, policy options and road map for implementation in the Americas. International journal of integrated care [serial online] [Internet]. 2013; Available from: https://ijic.ubiquitypress.com/articles/10.5334/ijic.1203/galley/2036/download/

20. **Jadad AR, Arango A, Sepúlveda JD, Espinal S, Rodríguez D, Wind K, editors.** Unleashing a pandemic of health from the workplace: Believing is seeing. Kindle. Beati Inc; 2017. 235 p.

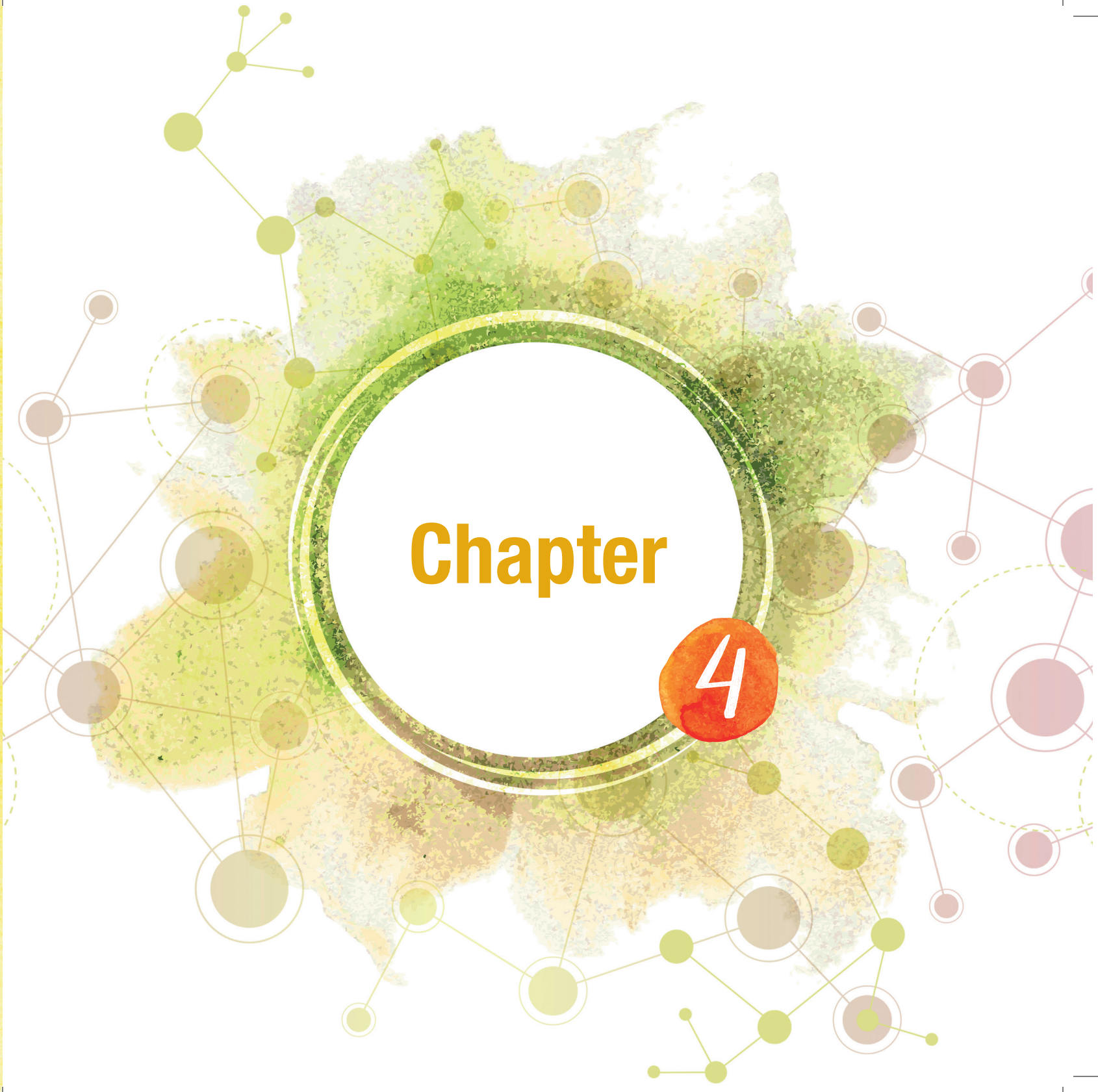
21. **Kotha R, Jadad AR, Hu H.** Creating a Pandemic of Health: Opportunities and Lessons for a University Initiative at the Intersection of Health, Equity, and Innovation. Harvard Public Health Review. 2015;5:1–8.

22. **Jadad AR.** Creating a pandemic of health: What is the role of digital technologies? J Public Health Policy. 2016 Nov;37(Suppl 2):260–8.

23. **Obucina M, Harris N, Fitzgerald JA, Chai A, Radford K, Ross A, et al.** The application of triple aim framework in the context of primary healthcare: A systematic literature review. Health Policy. 2018 Aug;122(8):900–7.

24. **Huber M, Knottnerus JA, Green L, van der Horst H, Jadad AR, Kromhout D, et al.** How should we define health? BMJ. 2011 Jul 26;343:d4163.

25. **Pelikan JM.** The Application of Salutogenesis in Healthcare Settings. In: Mittelmark MB, Sagy S, Eriksson M, Bauer GF, Pelikan JM, Lindström B, et al., editors. The Handbook of Salutogenesis. Cham (CH): Springer; 2016.


Chapter
4

HEALTH
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Chapter 4

Implementing an integrated network of healthcare services: From idea through model to reality

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Chapter 4

What is the challenge?

Those who embark on the creation and implementation of integrated healthcare service networks quickly realize that there are many barriers hindering their ability to transform their models and carefully-laid plans. The main difficulty is the dearth of reliable, replicable knowledge about how to increase the likelihood of success of their efforts (1). The main conclusion from the literature available seems to be that, although a lot has been gained in terms of being able to identify the key building blocks of integrated care, the interplay among them is so complex and intertwined that it might be impossible to create a simple way to guide implementation efforts (2).

Outside the research literature, there are many reports and books that attempt to support the implementation of integrated care networks. They tend to agree on the barriers that are most likely to hinder them. One set that is frequently cited as having utmost importance is the misperceptions of what is involved in the process. One of the most frequent myths, for instance, is that culture change is a secondary issue, or a “soft” or “touchy feely” matter, or a time-consuming distraction from more productive activities. Those who are convinced

that cultural and organizational change will occur as an inevitable result of an impeccable execution of an operational plan will likely fail (3).

Another closely related reason for failure is the underestimation of the time and effort that is required to build collaborative teams, as a successful integrated network requires changes in the core philosophy of care and a reworking of the roles and functions of many constituencies, from providers through managers to payers (4). This is compounded by the fact that most stakeholders participating in a budding network would likely lack role models or practice on how to work as part of teams, and would find it difficult to adopt the attitudes, or to develop the skills and display the behaviours necessary to collaborate successfully with others.

This tends to be aggravated by a lack of explicitness, or limited shared understanding of the characteristics of integration dimensions that should be pursued, in terms of their type (e.g., functional, organizational, professional or

clinical), breadth (e.g., horizontal, vertical or virtual) and degree (e.g., linkage, coordination or full integration) (5).

Often, as a result of the misjudgement of the complexity of cultural and organizational change, the lack of clarity of the extent of integration that would be pursued, or a limited appreciation of the intricacies of effective team building, leaders who want to see their networks up and running make a crucial mistake: once they decide that they want integration, and have created a model to follow, they set unrealistic timelines and outcomes that do not allow for proper team development and infrastructure preparation. This tends to lead to dissatisfaction by everyone involved and cost overruns (6).

At the organization level, difficulties often arise from the presence of silos and poor incentives for people to cross professional, disciplinary, geographic, administrative or financial boundaries. This is exacerbated by the conditions of the external environment, which is often plagued by rigid regulatory, funding and operational norms that reinforce such boundaries, impeding collaborative integrated activities across them (7).

A successful integrated network requires changes in the core philosophy of care and a reworking of the roles and functions of many constituencies

What is the opportunity?

As noted elsewhere in this book, the decision by Compensar to create and implement an integrated healthcare service network was driven by a combination of expediency and necessity. The political divisions and tensions in Colombia were very high, and the sustainability of the healthcare system was in doubt. This made it clear to the leadership of the organization that protecting the status quo would lead to the collapse of its insurance company, Compensar EPS, and that the time had come to transform the way in which it worked and related to its providers of healthcare services and its affiliates. This led to the model that was described in the previous chapter, which clarified the pathway to the implementation of the network.

Right from the outset, it was clear that, despite the lack of solid research evidence, there was a lot of practical experience available, in a generic sense, as it was the case with the role that adaptive leadership could play in the process, and more specifically in terms of the attitudes that had to be displayed and modeled in order to overcome the above barriers. Among these, it was obvious that it would be essential to focus, as a priority, on the more intangible qualities of the implementation process, with emphasis on the strengthening of the relationships among the stakeholders, the clarification of goals and values, and the devotion of substantive amounts of time to building support for change and to encourage collaboration. Structures are less important than relational factors such as trust and goodwill. In sum, it was decided to place more effort on developing strong and sustainable relationships than on structures and process (8).

The conditions were also favourable to spend energy on the development of a shared sense of what success would look like, so that it would be possible to determine how best to design local joint working arrangements and to agree on how to establish whether the chosen approach was working at any point along the journey. This was facilitated by the shared clarity that existed from the very beginning to consider integration as a means to an end: “to provide better services to Compensar’s affiliates, while contributing to the financial solvency of all of the participating organizations, and setting an example of value to others, in Colombia and beyond” .

What has been achieved?

As described in previous chapters, the implementation process was designed and developed jointly by Compensar EPS, the insurer, and the 35 institutions providing ambulatory and hospital services selected to participate in the network. The implementation efforts focused initially in the City of Bogota, which was divided into three zones; North, Center and South. Within each zone, primary care units were established and assigned to hospitals of secondary and tertiary level of complexity and emergency rooms. In addition, an extra group of institutions was created to offer horizontal services to the entire population, regardless of the location of a person at a time of need.

The implementation of the integrated network began in 2015 and its first phase was

completed in mid-2016. This phase aimed at strengthening the primary care component, aligning the care teams, and introducing measures seeking to yield a gratifying experience for the user, adequate outcomes and rational use of resources.

In 2017, a second phase focused on integrating the secondary and tertiary level hospital institutions with the primary level, seeking to optimize the referral and counter-referral processes.

During the initial phase, primary care teams were created, as described in the previous chapter, and enabled to offer health promotion, disease prevention, early detection, and basic therapeutic and rehabilitation services. Such teams, which act as the gateways to the network through general medicine outpatient, pediatric, oral health and dentistry consultations, are complemented by a larger set of services offered through the ambulatory units - including diagnostic and surgical procedures that do not require hospitalization, and basic emergency room services - with the intention to resolve 90% of the issues at this level (Table 4.1).

Table 4.1.

Portfolio of services available through ambulatory units

	GROUP OF SERVICES
Diagnostic support	• Cystoscopy • Colposcopies • Echocardiogram MB and dopler • Ultrasound • Electrocardiograms • Gastroenterology studies and procedures • Otolaryngology studies and procedures • Mammography • Stress tests • Radiology • Holter test • Standard urodynamics
Therapeutic support	• Infiltrations • Other procedures of the loaned specialties • Orthopedic procedures • Therapy and micronebulization • Physical therapy
Specialized medicine	• General surgery consultation • Plastic surgery consultation • Gastroenterology consultation • Orthopedics consultation • Otorhinolaryngology consultation • Urology consultation • Dermatology consultation with minor procedures • Gynecology consultation • Internal medicine consultation • Nutrition

	GROUP OF SERVICES
Ambulatory surgery	• Otorhinolaryngology surgery without hospitalization • General surgery without hospitalization • Orthopedic surgery without hospitalization • Plastic surgery without hospitalization • Urological surgery without hospitalization • Gynecological surgery without hospitalization
Promotion and prevention	• Demand induction • Antenatal care • Chronic patient care • Birth control consultation • Dietary consultation • Early detection of breast cancer • Early detection of growth and development delays • Early detection of abnormal conditions of the young • Early detection of cervical cancer • Expanded vaccination program

After early supply and demand calculations, 23 ambulatory units were opened throughout the three geographic zones. Eleven of them were operated directly by Compensar and 12 through alliances (Figure 4.1). Their objective is to provide equitable access to the population and to optimize the flow of cases to institutions with higher levels of complexity. This required, as of December of 2017, the recruitment of a total of 1,054 professionals from different health disciplines. Of these, 732 provide initial gateway roles (Table 4.2), and 322 are specialists who deal with the referrals of the personal physicians (Table 4.3).

Figure 4.1.

Geographic distribution of the ambulatory units in Bogotá

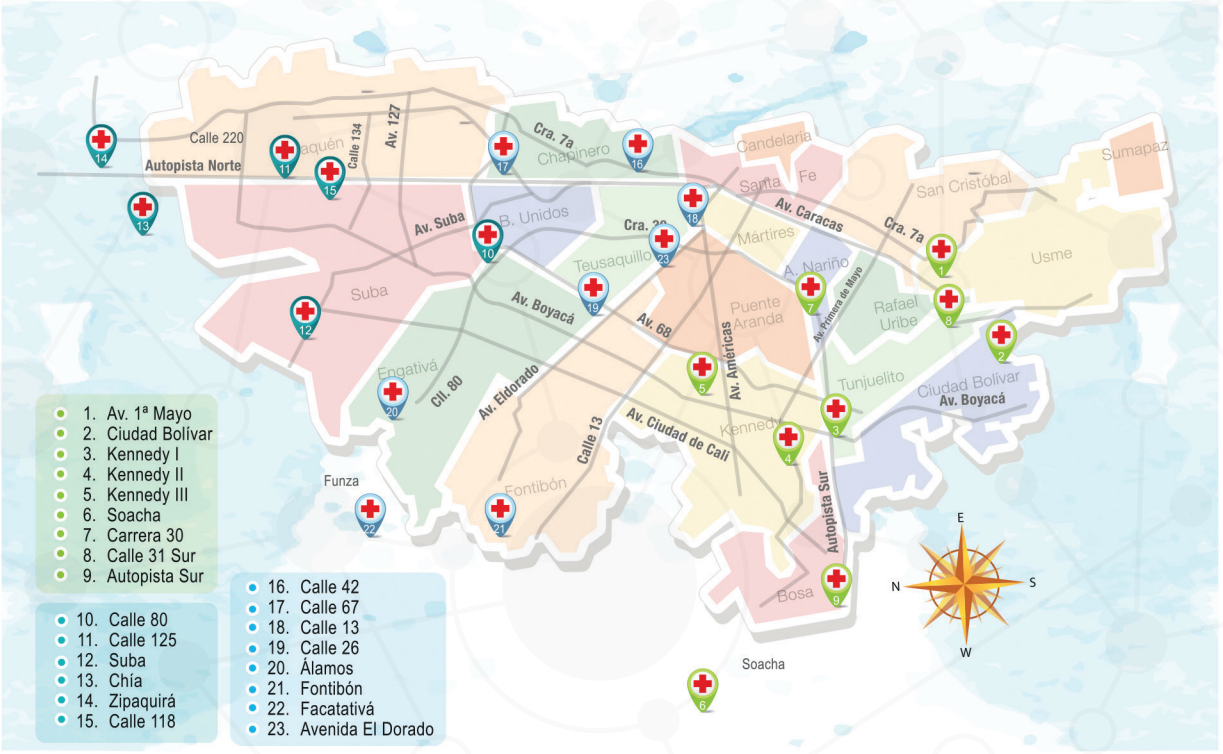


Table 4.2.

Staff distribution associated with primary care teams within all of the ambulatory units, 2016

GATEWAYS AND SUPPORT SERVICES	PROFESSIONALS
• General Practitioners	410
• Nurses (Promotion and Prevention Activities)	132
• Pediatricians	89
• Nutritionists	38
• Psychologists	24
• Occupational therapies	13
• Language therapists	12
Total	**718**

Table 4.3.

Specialized staff distribution associated with ambulatory units, 2016

SPECIALTIES	PROFESSIONALS
• Orthopedics	54
• Internal Medicine	45
• Gynecology	45
• Dermatology	36
• Urology	36
• General Surgery	23
• Otorhinolaryngology	21
• Family Medicine	19
• Plastic surgery	9
• Gynecology	6
• Gastroenterology	6
• Cardiology	5
• Neuropediatrics	5
• Endocrinology	4
• Pneumology	2
• Neurology	2
• Pediatric surgery	2
Total	**320**

To achieve maximum equity of access to services, the number of primary care units varies across ambulatory units and zones (Table 4.4).

Table 4.4.

Number of primary care team per ambulatory unit and zone, 2016

Georeference Zone	Ambulatory unit	Primary care teams
South	Avenida 1 de Mayo	7
	Kennedy I	6
	Autopista Sur	5
	Carrera 50	3
	Ciudad Bolívar	2
	Carrera 30	2
	Kennedy II	2
	Soacha	2
	Calle 31 Sur	1
Center	Calle 26	5
	Calle 42	5
	Fontibón	3
	Avenida El Dorado	3
	Calle 67	2
	Alamos	2
	Facatativá	1
	Calle 13	1
North	Suba	5
	Calle 125	3
	Calle 80	2
	Chía	2
	Zipaquirá	1
	Calle 118	1

The decision by Compensar to create and implement an integrated healthcare service network was driven by a combination of expediency and necessity.

By the end of the second semester of 2018, at least 85% of the affiliates had been allocated to a personal physician with support from the information technology platform of the network. As described elsewhere, each family physician is assigned to a primary care team, each team to an ambulatory unit, each unit to a secondary and tertiary facility, each facility to the network of providers and these to the insurance company.

As the ambulatory units developed, it was possible to refine a pathway to optimize the referral of people from the ambulatory units to hospitals in the network through the following mechanisms:

- **Referral and counter-referral process:** Using triage, each case that requires it is directed towards hospital services with the necessary level of complexity and capacity to handle the issue with minimal wait times. This process, which avoids repeating emergency room visits, is enabled by the information technology platform. The platform also is used to monitor the proportion of cases and the time it takes for them to be accepted and resolved at each location.

- **Personal hospital team:** Each affiliate is assigned to a hospital-based team of professionals, which oversees the care received in each case, with emphasis on quality, continuity and timeliness.

- **Hospital extension service (hospital-at-home program):** Compensar EPS created a core team for the management of home hospitalizations, which includes a physician leader with graduate training in public health, three nurses and a social worker. Together, they are responsible for aligning and connecting the providers of hospital-at-home services with the other relevant members of the network. Typically, such providers are privately-run organizations that deploy teams of physicians, nurse practitioners and nurse assistants, coupled with medical specialists in the most prevalent conditions, and a sophisticated transportation infrastructure.

Patients could be transferred from a hospital facility; referred by their primary care team; or discharged home directly from emergency rooms, bypassing entirely the traditional hospital setting (Table 4.5). The program has been divided into two components, according to the needs of the patients:

- Chronic hospitalization, for patients who have a severe Condition of disability and very complex needs, or poor social support, requiring permanent attention of the health team. This is coordinated by two providers, one serving the northern sub-network and the other the central and southern sub-networks

- Acute hospitalization, for those patients who require hospitalization for the management of acute conditions or decompensation of chronic diseases and who have an adequate social support network.

Table 4.5.

Cases managed through the hospital-at-home program (2016 - 2017)
(average number of patients per month)

SERVICES	2016	2017
• Chronic hospitalization	1,513	1,671
• Acute hospitalization following discharge	140	186
• Patients in acute home hospitalization referred from an emergency service	206	219

By the second semester of 2018, 15 hospital facilities were members of the network. Calculations of the supply needs guided individual and collective agreements with the insurer to ensure the availability of beds, and specialized services to affiliates in each of the zones (Table 4.6).

Table 4.6.

Hospitals participating in the network, including the number of beds and services available, 2018

ZONE	Health provider	Total beds	Services provided
Center	Clínica Partenón Ltda.	172	Medical and surgical hospitalization of medium complexity, emergencies and adult ICUs.
	Médica Magdalena S.A.S	56	Obstetrical and neonatal care.
	Corporación Hospitalaria Juan Ciudad	696	Medical and surgical hospitalization of medium and high complexity, emergencies, obstetrical care, adult ICU and neonatal ICU.
	Hospital Universitario San Ignacio	349	Medical and surgical hospitalization of medium and high complexity, emergencies, obstetrical care, adult ICU and neonatal ICU.
	Instituto de Ortopedia Infantil Roosevelt	134	Medical and surgical pediatric hospitalization of medium and high complexity, neonatal ICU.
South	Eusalud S.A	107	Obstetrical and neonatal care.
	Hospital Universitario Clínica San Rafael	280	Medical and surgical hospitalization of medium and high complexity, emergencies, obstetrical care, adult ICU and neonatal ICU.
	Clínica del Occidente S.A.	188	Medical and surgical hospitalization of medium complexity, emergencies, adult ICUs.
	Sociedad de Cirugía de Bogotá Hospital de San José	265	Medical and surgical hospitalization of medium and high complexity, emergencies, obstetrical care, adult ICU and neonatal ICU.
	Fundación Hospital de la Misericordia	411	Medical and surgical pediatric hospitalization of medium and high complexity, neonatal ICU.
	National Clinics Centenario S.A.S	109	Medical and surgical hospitalization of medium and high complexity, adult ICUs.
North	Clínica Juan N Corpas Ltda.	153	Medical and surgical hospitalization of medium complexity, emergencies and adult ICUs.
	Fundación Salud Bosque	118	Medical and surgical hospitalization of medium complexity, emergencies and adult ICUs.
	Clínica Universidad de La Sabana	112	Medical and surgical hospitalization of medium and high complexity, emergencies, adult ICU and neonatal ICU.
	Fundación Cardio Infantil Instituto de Cardiología	350	Medical and surgical hospitalization of medium and high complexity, emergencies, adult ICU and neonatal ICU.
Total		**3,500**	

The level of activity of each hospital is monitored constantly using two indicators: bed occupancy rates and referral success rate. The latter includes the rate and time of case acceptance. The information is used to guide the occupancy rate and to adjust the supply to accommodate the seasonality of some conditions and an average of 10% growth in the population of affiliates per year.

The requirements of high complex diagnostic and therapeutic interventions by the affiliates has led to the concentration of expertise within clusters of hospitals, to optimize quality and outcomes, and avoid duplication of efforts. This applies to oncology, cardiovascular care, neurosurgery and joint replacements.

The emergency rooms of the hospitals are complemented by emergency centres operated by the Colombian Red Cross in each of the zones. The centers work closely with ambulatory units and hospitals, so that when a person arrives with a triage level of four or five, they are referred to the former. Whenever hospitalization or surgery are required, the referral is directed to the hospital.

To modulate even more the flow of cases among the home, the ambulatory units, the hospitals and the emergency centres, a suite of horizontal services were concentrated in a select group of institutions, to cover the entire population regardless of the ambulatory unit to which they are allocated. These institutions offer high-volume services of intermediate to high complexity, focusing on physiatry, neurology, ophthalmology, cardiology, respirology, endocrinology, nephrology, diagnostic imaging, mental health and the dispensing of medication to the affiliates. Once a case is resolved by them, the affiliate is returned to the personal physician in the corresponding ambulatory unit.

As described in previous chapters, a core component for the successful operation of the network are the 'integration nodes', which are designed to ensure the timely and smooth flow of cases between the hospital and the ambulatory levels, and across levels. They include one coordinator-auditor provided by the insurer in each of the zones of the city, and one liaison professional allocated by each of the institutions participating in the network of providers (Table 4.7). These nodes are also in charge of verifying the compliance of all network members with the operating guidelines dictated by the model, identifying gaps and proposing adjustments whenever necessary; and of escalating the complexity of services whenever a particular level is unable to meet the needs of affiliates, while minimizing the bureaucratic load.

Table 4.7.

Integration node staff (as of mid-2018)

	ZONE		
	North	Center	South
Node coordinator	1	1	1
Liaison professional (ambulatory providers)	5	7	9
Liaison professional (hospital providers)	4	4	7
Liaison professionals (horizontal providers)		8	

Thanks to the collective efforts of all of the teams, customer service assistants are capable of resolving 90% of the affiliate requests during their first contact. The remaining 10% is handled by the integration nodes of the relevant zones and institutions, working in tandem with the personal physician of the affiliates. When the user requires hospital services and presents an administrative or technical situation that hinders access, it is managed by the institution's own liaison professional, who knows the operation of the internal processes of the IPS and manages the patient's effective care.

Thanks to the information technology platform, it is possible to trace every open case that cannot be addressed by them, and mobilize additional support from the network to resolve them within pre-established timeframes. Regular reports are then generated by the system to monitor the proportion of cases resolved in a timely manner, to analyze each open case and to provide feedback to the network about new insights to improve the overall process.

What needs to been done?

Apart from completing the allocation of a personal physician and primary care team to each affiliate, the implementation process will be based on the availability of new products, services and processes emanating from the work of the network, with emphasis on those derived from the refinement of the model, as described in the previous chapter, as well as:

- The integration into the network of existing social services available in each of the zones of operation.
- The adoption and introduction of new services specifically devoted to the optimization of health and well-being conceptualized as abilities (9).
- Greater use of the myriad services for the promotion of well-being that are available through Compensar, the parent organization of the insurer at the heart of the network.
- Focused efforts on ways to turn the network into a model for others through concerted efforts to improve the health and well-being status of every professional providing services to its affiliates.

References

1. **Mackie S, Darvill A.** Factors enabling implementation of integrated health and social care: a systematic review. Br J Community Nurs. 2016 Feb;21(2):82–7.

2. **Goodwin N.** Understanding and evaluating the implementation of integrated care: A "three pipe"problem. Int J Integr Care [Internet]. 2016;16(4). Available from: https://ijic.ubiquitypress.com/articles/10.5334/ijic.2609/

3. **Raney LE, Lasky GB, Scott C.** Integrated Care: A Guide for Effective Implementation. American Psychiatric Pub; 2017. 290 p.

4. **Lardieri MR, Lasky GB, Raney L.** Essential Elements of Effective Integrated Primary Care and Behavioral Health Teams [Internet]. SAMHSA-HRSA Center for Integrated Health; 2014. Available from: https://www.integration.samhsa.gov/workforce/team-members/Essential_Elements_of_an_Integrated_Team.pdf

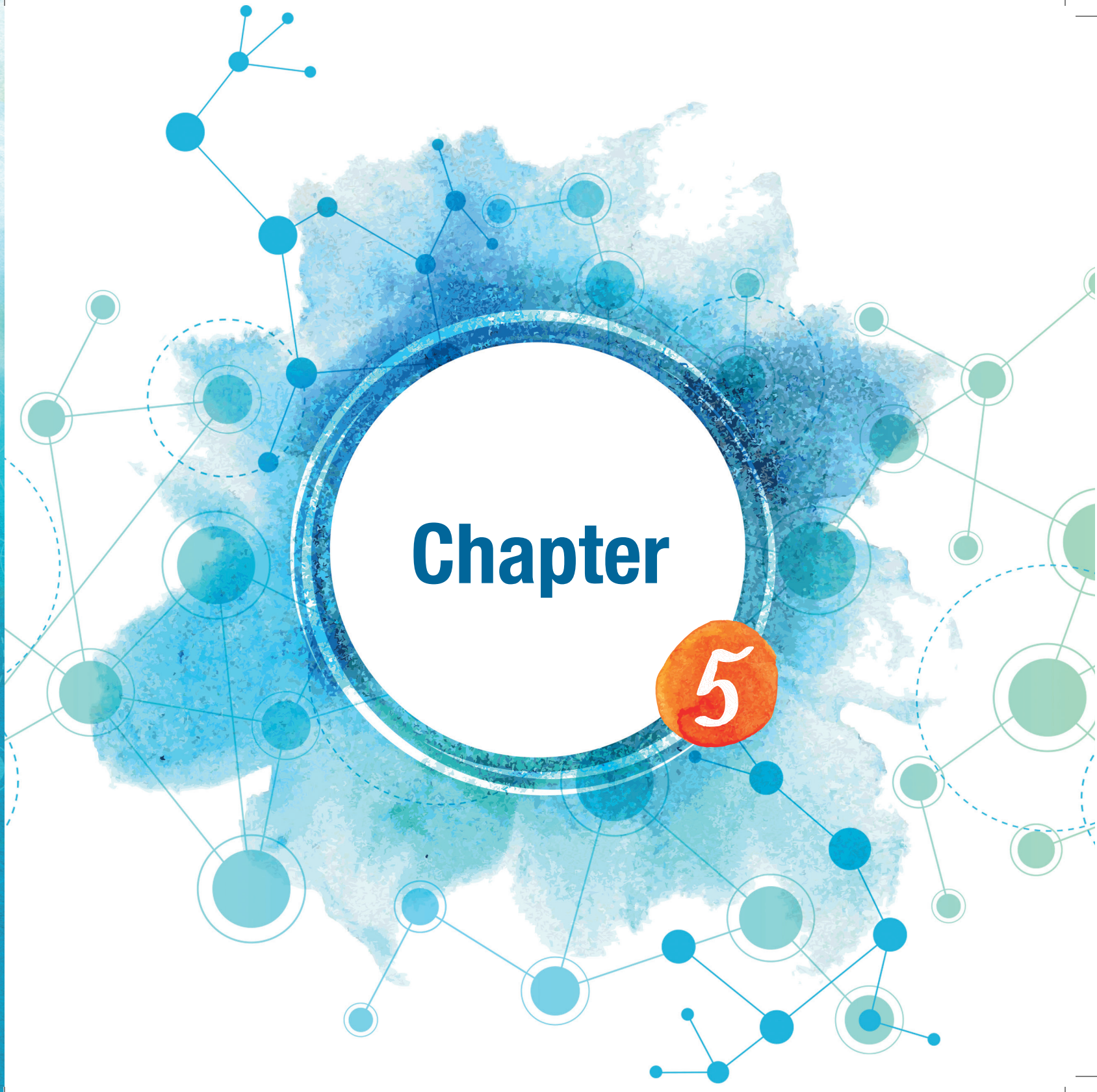
5. **Nolte E, McKee M.** Integration and chronic care: a review. In: Nolte E, McKee M, editors. Caring for people with chronic conditions: a health system perspective. Maidenhead, Open University Press; 2008.

6. **Wesorick B.** 21st century leadership challenge: creating and sustaining healthy, healing work cultures and integrated service at the point of care. Nurs Adm Q. 2002 Autumn;26(5):18–32.

7. **Janssen HJ.** Integrated health care system--creating and managing. Med Glas. 2008;5(1):16–23.

8. **Glasby J, Dickinson H, Miller R.** No one ever said it was going to be easy: the importance of people and relationships in creating integrated care. Int J Integr Care. 2014;22(5/6):null.

9. **Huber M, Knottnerus JA, Green L, van der Horst H, Jadad AR, Kromhout D, et al.** How should we define health? BMJ. 2011 Jul 26;343:d4163.


Chapter
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Chapter 5

Co-creating a future-proof health information system that meets the needs and expectations of all stakeholders

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Compensar EPS

What is the challenge?

Information systems are a mixed blessing to integrated healthcare service networks. On one hand, they intend to meet the usual needs of single health institution, such as the facilitation of data collection, information exchange, scheduling and billings, workflows, compliance with laws and regulations, and privacy, and the reduction of errors and costs. In addition, within networks per se, information systems are meant to enhance the level of integration through the reduction of fragmentation and redundancies inside and across member organizations, the promotion of continuity and coordination of care, and consumer centeredness (1,2).

Information systems, on the other hand, also create new potential problems to networks, particularly because of design flaws that hinder usability by staff and create unnecessary increases in workload; poor alignment with teamwork; inflexibility once they are implemented; limited interoperability, especially across legacy systems; high institutional dependence to vendors; and dehumanization of care, as a result of the standardization of processes and the physical and psychological barriers that computers create

during the interactions between professionals and the public (3,4).

Despite massive investments in information system infrastructure by almost every healthcare network and system in the world, regardless of how success or failure is defined, the evidence of effectiveness is generally weak and inconsistent. This is particularly relevant for claims related to improved diagnosis, clinical management, workflows and patient-centered care, which tend to feed into concerns about over-promises by vendors and advocates of information technology use in the health sector (5,6). A major issue is the lack of conclusive evidence that technological interventions are cost effective and that research in this area is deficient or of limited generalizability across settings (7). Lastly, there continues to be a wide gap between the options that the unprecedented penetration of social media has created and what health information systems incorporate, especially in terms of multimedia; tools to promote one-to-many, many-to-one, or many-to-many interactions; and open collaborative systems, free of unnecessary concerns about privacy (8).

What is the opportunity?

The creation of an integrated network of healthcare services from scratch enabled Compensar EPS to learn from others, and to engage all of its partners in discussions about priorities, expectations and contributions to its collective success.

At the same time, these conversations coincided with the launch by the Colombian Ministry of Health and Social Protection of the National Unified System for Health. This is a platform that began to be developed in 1975, and was revamped in 2003 to proceed in stages. In 2012 an important milestone was reached, with the culmination of the integration of 28 health Databases, the construction of a consolidated data warehouse and the generation of the National Health Observatory with the integration of twenty-four specialized thematic sub-observatories. The objective of this system was the standardization of information flows, the avoidance of duplication of reporting and monitoring requirements by oversight agencies, and support the National Primary Care Strategy. The following year, the epidemiological module of a much wider platform, which had been designed to integrate social services, known as SISPRO (Spanish Acronym for the Integrated System for Social Protection), was launched. This module was designed to facilitate access to data and analytical tools to facilitate decisions at all levels and by any interested organization, including insurers, healthcare service providers and the general public.

These advances improve the discussions across the network, which were enriched by interactions with representatives of leading organizations such as Kaiser Permanente in the United States and the Catalan Ministry of Health in Spain. That same year, several projects were initiated to guide information integration, data outputs, monitoring of risks and outcomes, and the identification of the specifications of viewers for health professionals initially and, eventually, the general public.

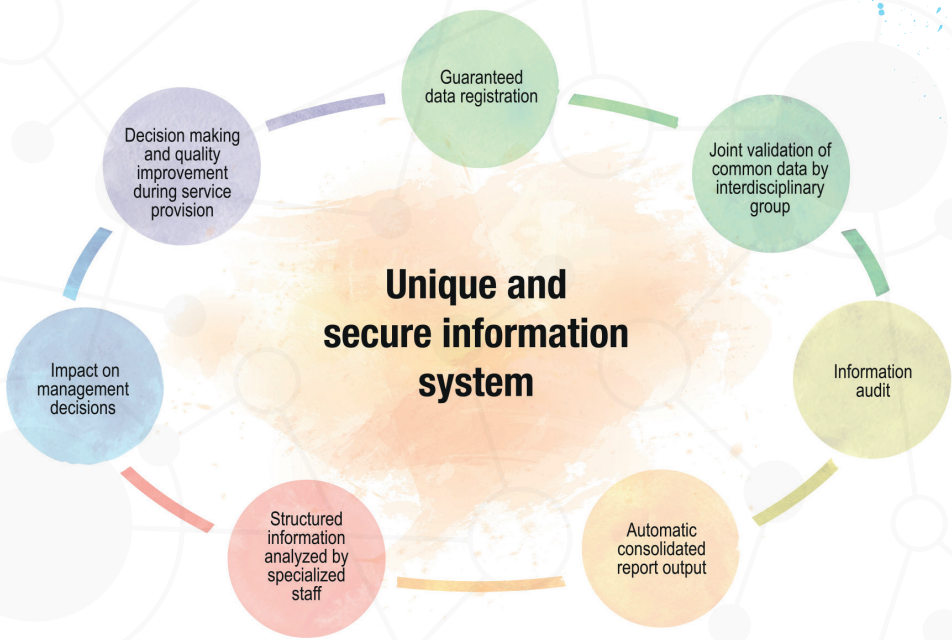
What has been achieved?

The interactions among the insurer - Compensar EPS - and the 35 members of the healthcare provider network led to the creation of a conceptual framework aimed at maximizing integration across traditional boundaries, while taking into account the information needs of each of the stakeholders (Figure 5.1).

The objective of this system was the standardization of information flows, the avoidance of duplication of reporting and monitoring requirements by oversight agencies

Figure 5.1.

Conceptual framework with essential elements of the information system

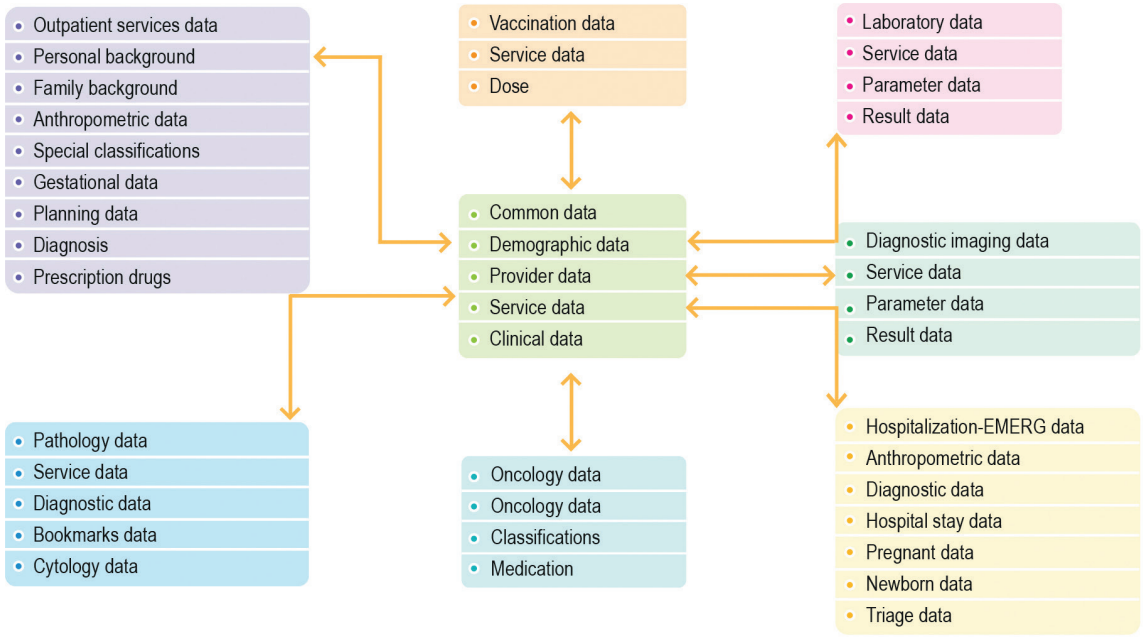


This framework guided efforts to deal with perceived barriers to change, especially the perception that it was impossible to share information among providers because of incompatibility across their legacy platforms and major differences in the level of maturity of their systems. New guidelines by the government in terms of standards for the management of personal information that individual organizations and networks would need to adopt facilitated decisions to overcome these barriers.

Subsequently, the activities focused on the construction of the structures and minimum set of data needed for the monitoring of high-priority pathologies and risks for network members as a whole. This facilitated the creation of a database that receives and hosts the information, taking into account semantic and syntactic definitions included in an Entity-Relationship diagram developed by consensus (Figure 5.2).

Figure 5.2.

Entity-Relationship Diagram



The "exposed" database began with the integration of ambulatory and clinical laboratory. Once its success was documented, the process was extended to other relationships maximizing the amount of reuse of common variables.

As more data circulated and were stored in the system, algorithms began to be created for the classification of patients with confirmed prioritized pathologies, allowing early and widespread signaling of the risk. This information was also used for the development of a cube of information, connecting clinical, administrative and equipment-related data to support decisions within primary care units.

Based on the information needs presented by network members, an integration layer capable of generating documents in PDF was also created, which was linked to a control file to facilitate the indexing of information in a repository of documents, the generation of clinical notes and summaries from hospital settings and emergency rooms, and the reporting of diagnostic imaging tests.

Initially, the activities focused on the construction of the structures and minimum datasets needed to monitor high-priority pathologies and risks.

Once these integrating activities were completed, it was possible to create a viewer called the "Unified Clinical Information System" (UCIS, and SICU in Spanish), which can be consulted by health professionals, regardless of whether the data come from clinical records available through their intranet or through the web. The development of the UCIS followed a sequential process (Figure 5.3), currently allowing access to:

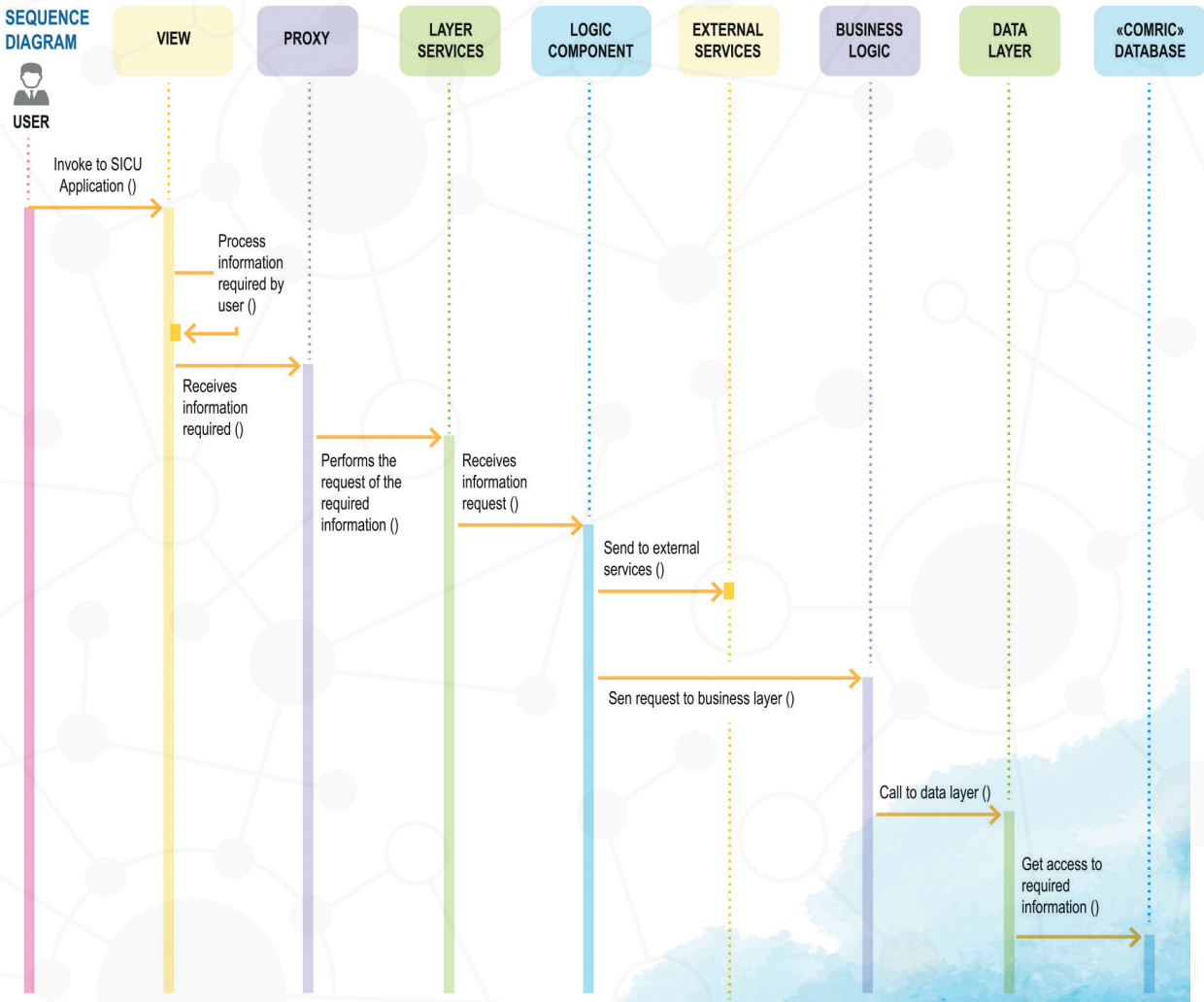
- Demographic data in real time through consultation of the master affliate database.
- Personal and family clinical history, including anthropometric data.
- Diagnostic codes for diseases and reference data for key diseases.
- Data on risk factors for high-priority pathologies.
- Clinical alerts related to allergy and medication history.
- Laboratory and pathology test results.
- Alerts associated with the clinical laboratory test results pending to be interpreted.
- Available diagnostic imaging reports.
- List of prescriptions and lab test requests per consultation.
- Alerts related to the formulation of medications according to the frequency of prescriptions.
- An agile view of the latest attention with the service and diagnostics.
- Discharge summaries from wards and emergency rooms.
- Future, confirmed and pending appointments.

The system allows the visualization of the information by date of service with a three-year summary available online.

The construction of the UCIS involved an iterative user-centred approach to design and development, with input from health professionals and affiliates. The latter can access information through a publicly access portal that they had available for years to request and cancel appointments.

Figure 5.3.

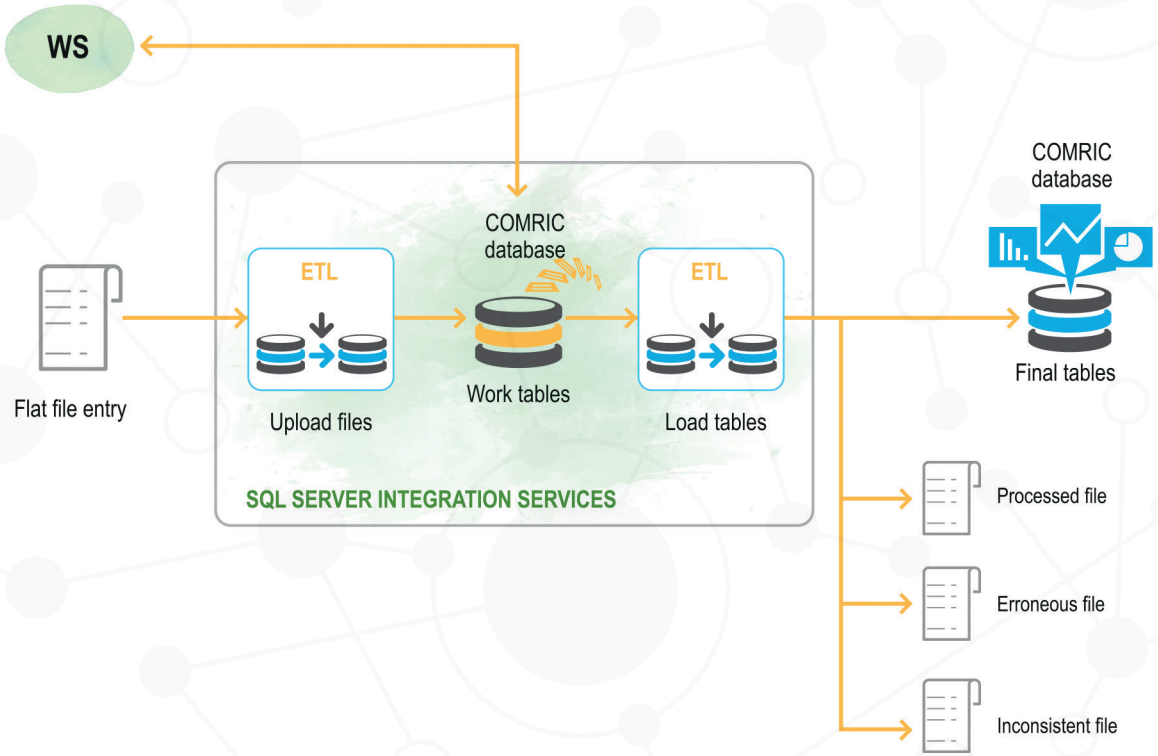
Sequence diagram of the UCIS



It should be noted that the design of the information system also had as a premise respect for the handling of the information of each one of those involved in the care process. Therefore, an interoperability layer was generated so it would allow sharing the data according to standards, inviting each of the stakeholders to contribute to improving the sources of information, while ensuring that they would devote less and less time to the collection and unification of data, and have more time to analyze them, to to improve the care processes and to implement predictive models. For this, integration by flat files and web services is possible, for each of the integrated services, with integration that allows accessing information online and in batches.

Figure 5.4.

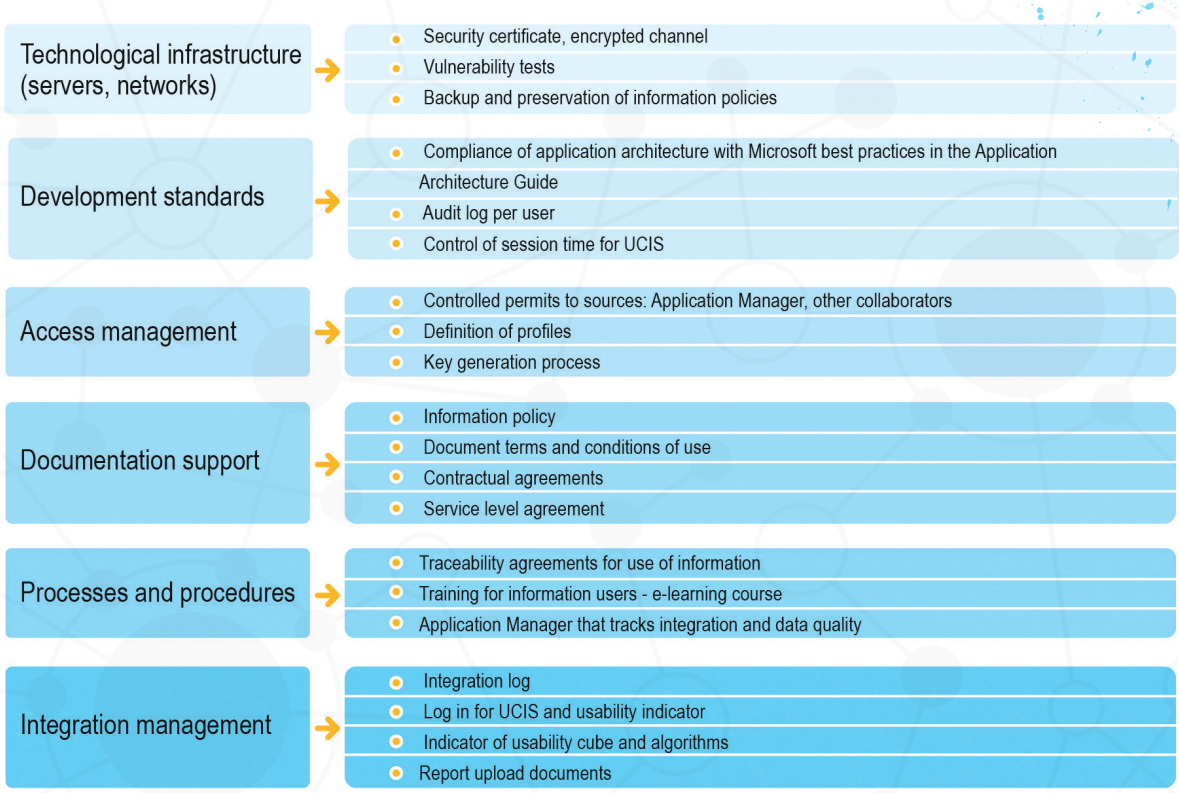
Information upload to the database



It is also necessary to mention that strong efforts have been made to guarantee the security of the data not only from its generation, but also within the channels through which they travel, and the points of access and use (Figure 5.5).

Figure 5.5.

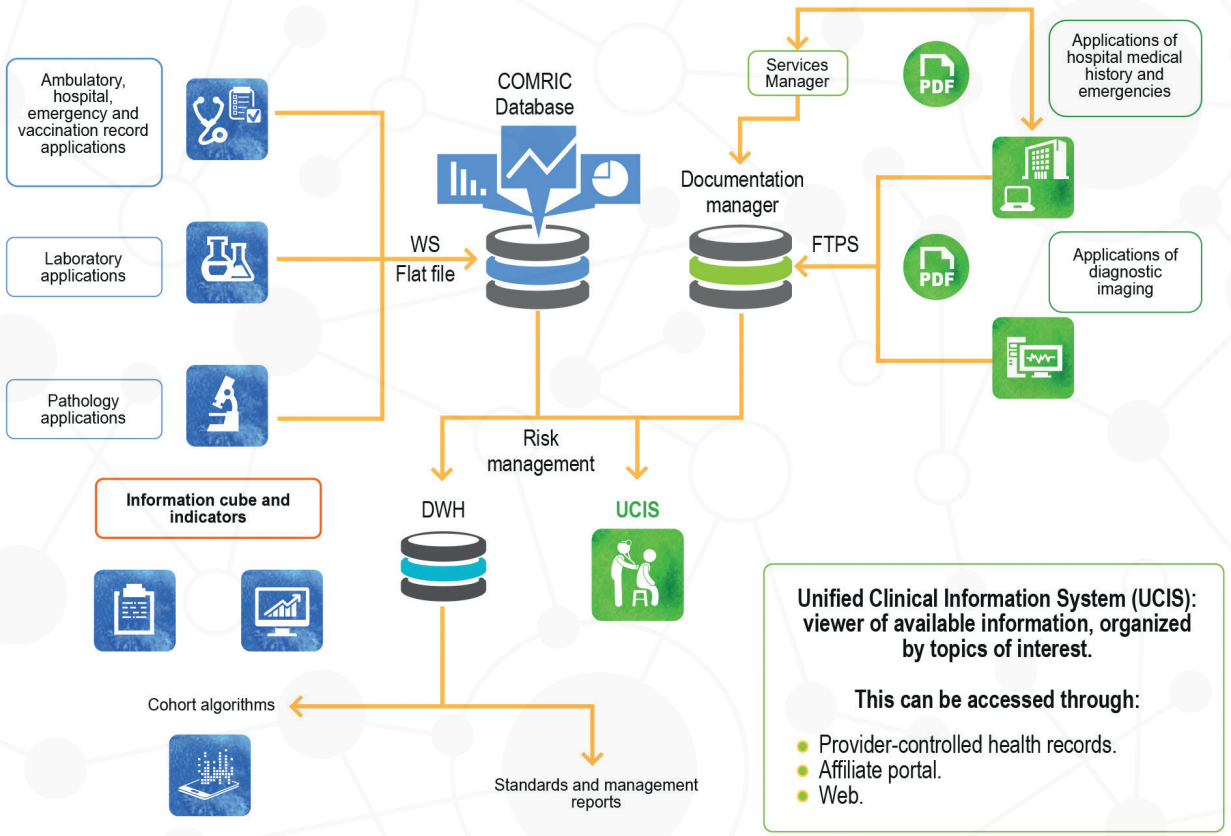
Process to guarantee data security



At the end, thanks to the joint effort of insurers, providers and the affiliates, it has been possible to overcome many technical barriers and to position the information system as an asset to support the integration of the network and the high level of trust that fuels it (Figure 5.6).

Figure 5.6.

A high-level illustration of the information system



The investment required to achieve this level of integration and support to stakeholders was less than US $2 million over five years (Table 5.1).

Table 5.1.

Cost of the information system (2013 to 2017)

COMPONENT	YEAR	Cost (in US$ rounded to the nearest 1,000)	COMMENTS
Unified Clinical Information System	2013 - 2016	601,000	Development of the clinical databases, the integration and interoperability layer with providers and output from the data warehouse, confirmation algorithms, risk assessment, and data and imaging viewers.
	2017	176,000	
Cohort tagging and stratification	2012 - 2013	15,000	Classification of affiliates through algorithms that establish the suspicion of risk factors following prioritization, and stratification.
Health portal	2016 - 2017	16,000	Web-based and intranet-enabled publication of network information and access to the UCIS.
Platform and annual maintenance	Platform itself (one time)	714,000	Includes development environment, testing and production.
	Initial license	193,000	One-time fee.
	Annual license	116,000	Includes technical support.
TOTAL (by 2017)		**1,831,000**	

What needs to be done?

Given the level of maturity and adoption of the information system, it is now possible to engage in efforts to optimize its value and to incorporate leading-edge tools and processes that could contribute to exceeding the triple and quadruple aim (3). Among others, the following are some of the top priorities:

- Better use of unstructured data through the introduction of machine learning tools.
- Strengthening the levels of affiliate engagement, with emphasis on wearable and other mobile devices capable of generating data in real-enough-time.
- Integration with Internet of Things initiatives(9).
- Inclusion of self-reported health and well-being at all points of contact with affiliates, and their use as the top indicators of the performance of the system.
- Full integration with databases of assets within the built environment of the affiliates and Compensar's ecosystem, to enable the individual and collective prescription of non-medical services that truly match the affiliate needs.

Together with the robust tools and processes that are strengthening the clinical and administrative activities of the network, these new directions will play a major role in the collective efforts made by all of its members to demedicalize the existing services, while laying the foundations for a sustainable and vibrant health and well-being driven integrated system.

References

1. **Gray CS, Barnsley J, Gagnon D, Belzile L, Kenealy T, Shaw J, et al.** Using Information Communication Technology in Models of Integrated Community-Based Primary Health Care: Exploring ICT in the iCOACH Study. Int J Integr Care [Internet]. 2017;17(5). Available from: https://ijic.ubiquitypress.com/articles/10.5334/ijic.3452/?toggle_hypothesis=on

2. **Liaw S-T, Kearns R, Taggart J, Frank O, Lane R, Tam M, et al.** eHealth and Integrated Primary Health Care Centres. Int J Integr Care [Internet]. 2017;17(3). Available from: https://ijic.ubiquitypress.com/articles/abstract/10.5334/ijic.3154/

3. **Sheikh A, Sood HS, Bates DW.** Leveraging health information technology to achieve the "triple aim" of healthcare reform. J Am Med Inform Assoc. 2015 Jul 1;22(4):849–56.

4. **Granja C, Janssen W, Johansen MA.** Factors Determining the Success and Failure of eHealth Interventions: Systematic Review of the Literature. J Med Internet Res. 2018 May 1;20(5):e10235.

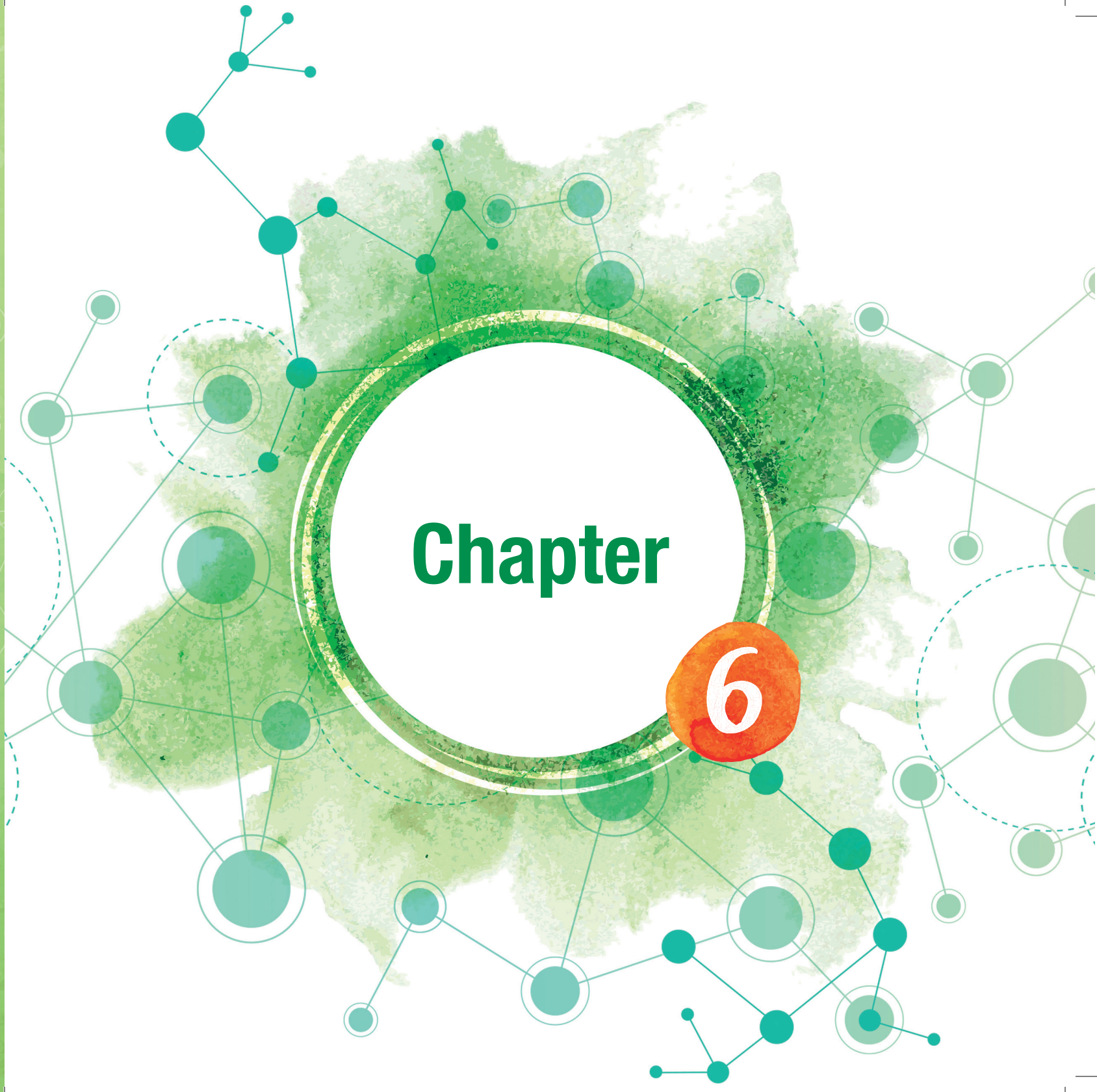
5. **Sligo J, Gauld R, Roberts V, Villa L.** A literature review for large-scale health information system project planning, implementation and evaluation. Int J Med Inform. 2017 Jan;97:86–97.

6. **Ross J, Stevenson F, Lau R, Murray E.** Factors that influence the implementation of e-health: a systematic review of systematic reviews (an update). Implement Sci. 2016 Oct 26;11(1):146.

7. **Black AD, Car J, Pagliari C, Anandan C, Cresswell K, Bokun T, et al.** The impact of eHealth on the quality and safety of health care: a systematic overview. PLoS Med. 2011 Jan 18;8(1):e1000387.

8. **Shachak A, Jadad AR.** Electronic health records in the age of social networks and global telecommunications. JAMA. 2010 Feb 3;303(5):452–3.

9. **Evans D.** Internet de las cosas. Available from: https://s3.amazonaws.com/academia.edu.documents/34766160/internet-of-things-iot-ibsg.pdf?AWSAccessKeyId=AKIAIWOWYYGZ2Y53UL3A&Expires=1540754868&Signature=wJA6mbXX8xc18yAEHGgK7U6ZNew%3D&response-content-disposition=inline%3B%20filename%3DInternet-of-things-iot-ibsg.pdf


Chapter
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Chapter

6

Governance based on trust: an essential element for successful integrated healthcare networks

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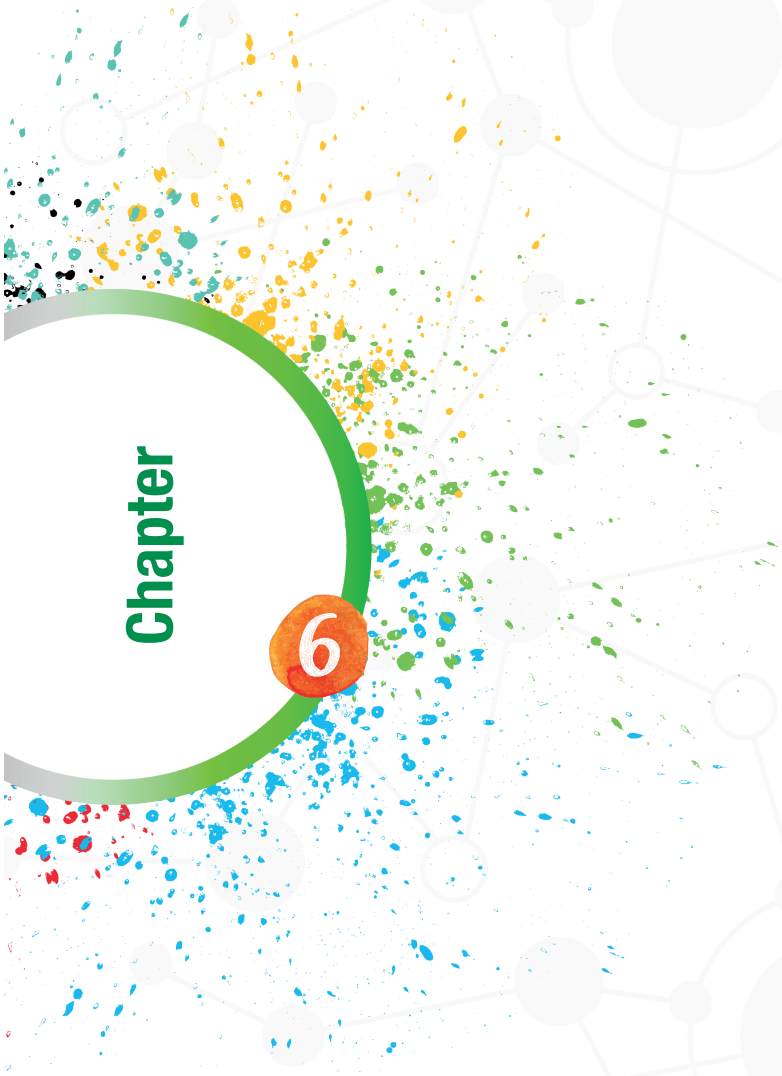


What is the challenge?

Trust is a key factor for any discussion about the development, management or oversight of integrated healthcare networks to advance. In fact, it could be argued that it would be impossible for an integrated healthcare network, or for a healthcare system at large, to succeed without trust.

Although the meaning of trust has been debated for decades, it was recently proposed that trust includes three components: how one trusts, who one trusts and what one trusts another person to do. Based on this, it could be conceptualized as the belief of a person (known as 'the truster') about the capability and commitment of another individual or entity (known as 'the trustee') to fulfill specific goals and desires in relation to a particular matter that emerges under conditions of unknown outcomes. This means that the truster has to face the potential for losses as well as gains, and the trustee should have the freedom to align or go against the interests of the truster (1).

Trust is considered a 'lubricating' force within organizations, which often encourages commitment, cooperation, knowledge sharing and judicious use of limited resources Trust could then be broken at any level whenever the beneficial

efforts of the trustee are expected and possible but do not materialize (2). Because health has such deep clinical, socio-political and economic roots and manifestations, it could also break at the interpersonal level, at the level of individual health organizations and the health sector or society as a whole.

Despite its importance for their proper functioning, it is surprising to realize how little attention trust has received in relation to integrated healthcare networks (3), as most of the knowledge seems to emanate from literature published at the end of the 20th century on 'managed care', a term that is used mainly in the United States to describe what appears to be, at least on the surface, equivalent to integrated care (4,5). Within this context, those building or fostering the consolidation of integrated healthcare networks would also need to acknowledge a major issue: trust is under threat or broken within any relationship involving lay people, healthcare professionals, researchers, managers of healthcare institutions, payers, politicians and policy makers, fueled by increasing levels of suspicion at and across all levels.

Since 2003, surveys in the United States have revealed that less than 10% of members of the general public trust the health insurance sector or managed healthcare organizations, which are saved from being at the bottom of the list by the consistent presence there of oil and tobacco companies (6,7).

Healthcare professionals and managers also tend to perceive each other as untrustworthy especially because of their misaligned incentives: clinicians perceive managers as bureaucrats that are trying to control them through audits and standardization of practices, and managers perceive clinicians as insensitive about the need to contain costs or unappreciative of their value to the system (8).

It has also been shown that patients in managed care plans or whose physicians are reimbursed on a capitated basis have lower levels of trust in their physician relative to those on a fee-for-service model. Trust is also eroded by public perception of the restriction of options for care due to financial incentives within profit-seeking networks (9).

Trust among institutions participating in an integrated network is also jeopardized by asymmetries in the level of recognition and knowledge they have about each other's skills, expertise and capabilities; financial imbalances within the network; and organizational differences in management, culture and attitudes toward change (10).

Trust is perhaps the most important ingredient in the development, management, and oversight of integrated healthcare networks.

What is the opportunity?

A collaborative and shared governance model has been suggested as an effective approach to overcome most of the obstacles hindering the development of high levels of trust during the implementation and evolution of an integrated network (11,12), likely as the result of increased collective accountability, more effective use of information, better transparency in decision-making by providers and managers, stronger voice to the community and better alignment of incentives at all levels (13).

Effective governance requires the presence of clear, co-created rules to guide the tasks or functions of providers, users and other decision-makers, and to facilitate negotiation, resolution of conflicts, joint decisions and the exertion of authority (14). This means, first of all, a change in the interinstitutional relations between providers and insurers, where a new management mode that allows participation at all levels and that implies a balance in the parties' relationships and interests is sought. Therefore, governance is different from governability, which implies a relationship where there is a ruler and a governed, with a clear asymmetric relationship between the parties (15).

Creating effective governance structures within an integrated network requires maturity to recognize the existence of conflicting interests on the part of the different stakeholders, and the need to align them. Likewise, it requires coherence between discourse and action. These interests arise mostly from the competitive environment within health systems and the diverse nature of incentives driving each group. This is clearest on the financial front, as insurers (or payers in general) derive greater gains from a healthy population with low demands for medical services whereas providers benefit from the opposite scenario (16). Consequently, the best approach to soften tensions among stakeholders is through a governance model that serves the interests of the community while preserving the autonomy of individual organizations (17). Achieving this requires a carefully orchestrated process in order to persuade and engage effectively all of the participating institutions, secure their commitment to the formulation and acceptance of common rules that could optimize the alignment of disparate incentives, agree on common goals and a mechanism for enforcing them. The joint interest in providing better levels of health as a general purpose - in addition

to efforts to generate agreements on incentives and indicators - facilitated the creation and development of a governing body composed of managers and leaders of the organizations that make up the network. This contributed to their being aware of the risks associated with misalignment of incentives, poorly thought through policies, nepotism, incompetence and their own lack of trust (18).

Compensar, after having conceived and implemented the network together with the providers, used this conceptual framework and its awareness of the challenges and opportunities ahead, to build a governance structure collaboratively.

What has been achieved?

In 2012, when a decision was made to create an integrated healthcare network, it was clear to Compensar EPS that the effort would succeed only if it could persuade the 35 institutions that were responsible for the provision of services to its almost 1.4 million affiliates to engage, from the outset, in the creation of a governance model that would be based on trust.

Trust was singled out as the core element of the network because of the dire conditions of the health system in Colombia at the time. As noted in previous chapters, the country was in the middle of the negotiations of the peace process with guerilla groups, the population was migrating towards extreme political poles, the dollar was at record highs, and there were mounting doubts about the sustainability of most health insurance and service provision organizations in the country. Healthcare costs and the sector deficit were escalating quickly generating the bankruptcy and closure of some institutions; some health indicators were worsening along with the quality of services; and social gaps were widening. Government intervention of the largest insurance company in the country, driven by accusations of misuse of funds and corruption, was deepening the level of mistrust of the public towards the healthcare system, and raising questions about the viability of the entire national health system, which was on the verge of collapse (19,20). The tensions among insurers, providers, the government, healthcare professionals and patient associations were at an all-time high, as several insurers were claiming insolvency, delaying payments to their providers or making it increasingly difficult for the public to access services. This was resulting in a record high number of lawsuits— known as tutelas— brought by individual citizens to the Constitutional Court to revert the denial of coverage for services issued by their private insurers (21,22), leading to even lower levels of public satisfaction and trust, and growing calls to end the role of insurers as financial and administrative intermediaries between providers and the public (23).

The conviction that it would be essential for the nascent network to have a solid governance structure with trust at its core, led Compensar EPS and the participating healthcare institutions to engage in a carefully-planned collaborative process to incorporate a series of key elements, all of which have been identified as important in the literature (17).

The first step was the creation of the governance body itself, with participation of the leaders of Compensar EPS and each of the healthcare providing organizations. To promote maximum trust from the outset, a confidentiality agreement was signed by all parties. This was followed by a series of gatherings of all institutional leaders and legal representatives to establish the scope of the governance model, the structure of the governing body itself, as well as the functions and powers required to foster transparent and effective collaborative decision making, and maximum alignment of interests. In short order, the mechanisms to guide the election of the members of the governing body were defined, as well as the terms of service and the frequency of meetings. All member organizations agreed, around a common purpose that positioned the affiliate, as a person, at the center, to contribute to and engage in a change process within their corresponding institutions, and to redesign their internal procedures, whenever necessary, to satisfy their shared clinical, financial and human talent priorities.

After multiple iterations, the governance body decided to be responsible for the following functions:

- Definition and ongoing refinement of the network's strategy, objectives and goals.
- Generation of guidelines and policies to ensure compliance with such objectives and goals.
- Creation of mechanisms for monitoring the results, indicators and functions of the network.
- Mediation in the event of major differences or conflicts that could not be resolved by the network members involved.
- Development and enforcement of an Inter-institutional Agreement outlining the responsibilities of each of the members of the network, mechanisms to prevent and handle breaches, conflicts of interest, and rules for the management of intellectual property and for the dissolution of the network.

The development of a solid governance structure to ensure that the entire network would be based on a strong foundation of trust has required painstaking efforts and unprecedented levels of commitment. Initially, instead of having a single governing body, it was decided to begin with a pilot effort around the service provision to a population at the centre of the geographic region covered by the network. After it was felt that the activities were consolidated in this region, regarded as the 'core network', two additional governing bodies were created in the northern and southern portions of the whole coverage area. Over time, it was evident that the themes that the three bodies had to handle were almost identical, so it was decided to have

a single governing structure, with full clarity of their differentiation in terms of geographical areas of influence and the type and complexity of the services provided.

From the beginning, it was agreed to invest resources to foster research and innovations that could facilitate data collection and exchange across institutions, the generation of robust performance assessments, the emergence of new services and greater efficiency of financial transactions. This led to the design and construction of a comprehensive model of care, a knowledge management strategy, and a robust information communication technology platform that are described in detail elsewhere in the book.

All of this was motivated by the common goal of ensuring that the population affiliated to Compensar EPS in Bogota and surrounding areas could benefit from optimal services throughout the continuum of care, and to secure the autonomy and viability of all of the organizations participating in the network

.

By 2018, it was clear that the emphasis on building a robust network, with a strong governance structure and trust as its foundation had paid off. A case in point was the challenge created by a state of emergency decreed by the Mayor of Bogotá in February of 2016 as a result of an epidemic of upper respiratory infections (24). Thanks to the mechanisms mentioned above, and the close ties across the participating institutions, the network was able to establish a joint and effective work plan to reduce the use of emergency services, optimize the use of beds and strengthen outpatient and home care during the outbreak.

The positive impact of the trust-based approach to the governance and operation of the network is also reflected by the robust indicators of performance that were obtained as part of the comparisons with entire country members of the OECD that are described elsewhere in the book, indicating that the intellectual, emotional and financial investments made to date are worthwhile.

What needs to be done?

One of the top priorities of the governing body is to address elements of the Inter-Institutional Agreement that remain incomplete, such as:

- The integration of the results of the joint research and other knowledge generation efforts in the services, processes and model.

- The introduction of specific policies and initiatives to raise awareness about the importance of self-care for all members of the network, and of learning about how to make effective use of the existing resources that institutions, control entities and scientific societies have at their disposal to generate higher levels of health and well-being, seeking the sustainability of the system.

- The inclusion of a new set of incentives and benefits that could transform the contractual relationships between the insurer and the health service providers, and across providers, to reduce the amount of bureaucracy.

- The continuation of collective efforts to strengthen mechanisms to ensure timely access to services, so that unnecessary barriers do not hinder trust in the system in general.

- The refinement of quality improvement policies that could fill some of the gaps in indicators advocated through more demanding frameworks (25).

- The development of mechanisms to gain greater economies of scale around logistics, purchasing (especially drugs, and diagnostic and surgical equipment) and the management of service contracts.

- The upgrading of the information system, to generate data to inform decisions at all levels, in real-enough-time, and boost the capacity of the affiliates to play a greater role in the generation of health and well-being for all.

- The initiation of programs to promote optimal levels of trust around the model and teamwork, particularly in the middle and bottom layers of all participating organizations.

- The design and implementation of human talent policies aimed at increasing the levels of engagement of health professionals, administrative staff and affiliates in the evaluation and improvement of the model, and the network at large.

Trust is the belief of a person (known as 'the truster') about the capability and commitment of another individual or entity (known as 'the trustee') to ful ll specific goals and desires in relation to a particular matter that emerges under conditions of unknown outcomes.

Beyond the current framework and scope of the network, the following are areas that require more attention, which could also be of value to other groups around the world:

- Mechanisms to facilitate a shift from the focus on the effective and efficient management of disease to a re-alignment of the entire network with the attainment of the highest possible levels of health and well-being, conceptualized as the abilities to adapt and self-manage physical, mental and social challenges (26), and to judge that life is going well (27).

- Structures and incentives that would encourage greater collaboration between front line professionals with community leaders and policy makers to gain insights as to how best to bring a much richer set of social services and assets into the network (28).

- Linkages to the pharmaceutical industry and device manufacturing sector that could secure their commitment to the sustainability of the network and the health system at large, while protecting their own bottom line.

At the 'meta' level, key areas for further development include the identification or development of tools to assess the performance of the governance structure itself (29), and to assess the level and types of trust at all levels of the network (3).

Finally, it would be ideal for the leaders of the network to embark in deliberations about new policies, regulations and incentive systems to motivate a shift of power from the insurers and the providers to the public at large, enabling the Affiliates Association to have more influence in the network and committing to making the dream of a people-centred care integrated system a reality for all (13).

References

1. **Robbins BG.** What is Trust? A Multidisciplinary Review, Critique, and Synthesis. Sociology Compass. 2016 Oct 5;10(10):972–86.

2. **Mollering G.** Foreword. In: Brownlie J, Green A, Houson A, editors. Researching trust and health. Routledge; 2008. p. vii – x.

3. **Huby G.** Accountability and trust in integrated teams for care of older people and people with chronic mental health problems. In: Researching Trust and Health. Routledge; 2008. p. 125–44.

4. **Kodner DL, Spreeuwenberg C.** Integrated care: meaning, logic, applications, and implications--a discussion paper. Int J Integr Care. 2002;2:e12.

5. **Shortell SM, Gillies RR, Anderson DA.** The new world of managed care: creating organized delivery systems. Health Aff . 1994 Winter;13(5):46–64.

6. **Oil, Pharmaceutical, Health Insurance, and Tobacco Top The List Of Industries That People Think Should Be More Regulated - The Harris Poll [Internet].** The Harris Poll. 2010 [cited 2018 Oct 19]. Available from: https://theharrispoll.com/a-new-harris-poll-finds-that-the-oil-pharmaceutical-health-insurance-and-tobacco-industries-top-the-list-of-industries-that-people-believe-should-be-more-regulated-these-industries-as-well-as-the/

7. **The Harris Poll.** Harris Poll: Only Nine Percent of U.S. Consumers Believe Pharma and Biotechnology Put Patients over Profits; Only 16 Percent Believe Health Insurers Do [Internet]. PR Newswire. 2017 [cited 2018 Oct 25]. Available from: https://www.prnewswire.comharris-poll-only-nine-percent-of-us-consumers-believe-pharma-and-biotechnology-put-patients-over-profits-only-16-percent-believe-health-insurers-do-300391043

8. **Brown P, Alaszewski A, Pilgrim D, Calnan M.** The quality of interaction between managers and clinicians: a question of trust. Public Money & Management. 2011 Jan 1;31(1):43–50.

9. **Huang EC-H, Pu C, Chou Y-J, Huang N.** Public Trust in Physicians-Health Care Commodification as a Possible Deteriorating Factor: Cross-sectional Analysis of 23 Countries. Inquiry. 2018 Jan;55:46958018759174.

10. **Li W, Islam A, Johnson K, Lauchande P, Shang X, Xu S.** Understanding inter-organizational trust among integrated care service provider networks: A perspective on organizational asymmetries. Health Policy [Internet]. 2018 Sep 11; Available from: http://dx.doi.org/10.1016/j.healthpol.2018.09.003

11. **Miller ED.** Shared Governance and Performance Improvement: A New Opportunity To Build Trust in a Restructured Health Care System. Nurs Adm Q. 2002 Apr;26(3):60.

12. **Minkman MMN.** Longing for Integrated Care: The Importance of Effective Governance. Int J Integr Care. 2017 Oct 2;17(4):10.

13. **WHO global strategy on people-centred and integrated health services [Internet].** World Health Organization; 2015 Sep [cited 2018 Sep 9]. Available from: http://www.who.int/servicedeliverysafety/areas/people-centred-care/global-strategy/en/

14. **Struijs JN, Drewes HW, Stein KV.** Beyond integrated care: challenges on the way towards population health management. Int J Integr Care. 2015 Oct;15:e043.

15. **Córdova FME.** GOBERNABILIDAD Y GOBERNANZA EN AMERICA LATINA. 2007; Available from: http://www.institut-gouvernance.org/bdf/docs/ficha-gobernabilida.pdf

16. **Conrad P.** The Medicalization of Society: On the Transformation of Human Conditions into Treatable Disorders. Johns Hopkins University Press; 2007. 224 p.

17. **Nicholson C, Jackson C, Marley J.** A governance model for integrated primary/secondary care for the health-reforming first world - results of a systematic review. BMC Health Serv Res. 2013 Dec 20;13:528.

18. **Nicholson C, Hepworth J, Burridge L, Marley J, Jackson C.** Translating the Elements of Health Governance for Integrated Care from Theory to Practice: A Case Study Approach. Int J Integr Care. 2018 Jan 31;18(1):11.

19. **Bernal O, Forero JC, Forde I.** Colombia's response to healthcare crisis. BMJ. 2012 Feb 23;344:e802.

20. **Webster PC.** Health in Colombia: a system in crisis. CMAJ. 2012 Apr 3;184(6):E289–90.

21. **Yamin AE.** Colombia's health reform: false debates, real imperatives. Lancet. 2010 Mar 6;375(9717):803.

22. **Tsai TC.** Second chance for health reform in Colombia. Lancet. 2010;375(9709):109–10.

23. **Londoño E, Molano P.** Are Colombia's reforms enough for a health-care system in crisis? Lancet. 2015 May 16;385(9981):1943.

24. **Alcaldía Mayor de Bogotá, D.C. DECRETO 063 DE 2016 [Internet].** 063 Febrero 05 2016. Available from: http://www.adebogota.org/pdf/decretos/2016/dec063_2016.pdf

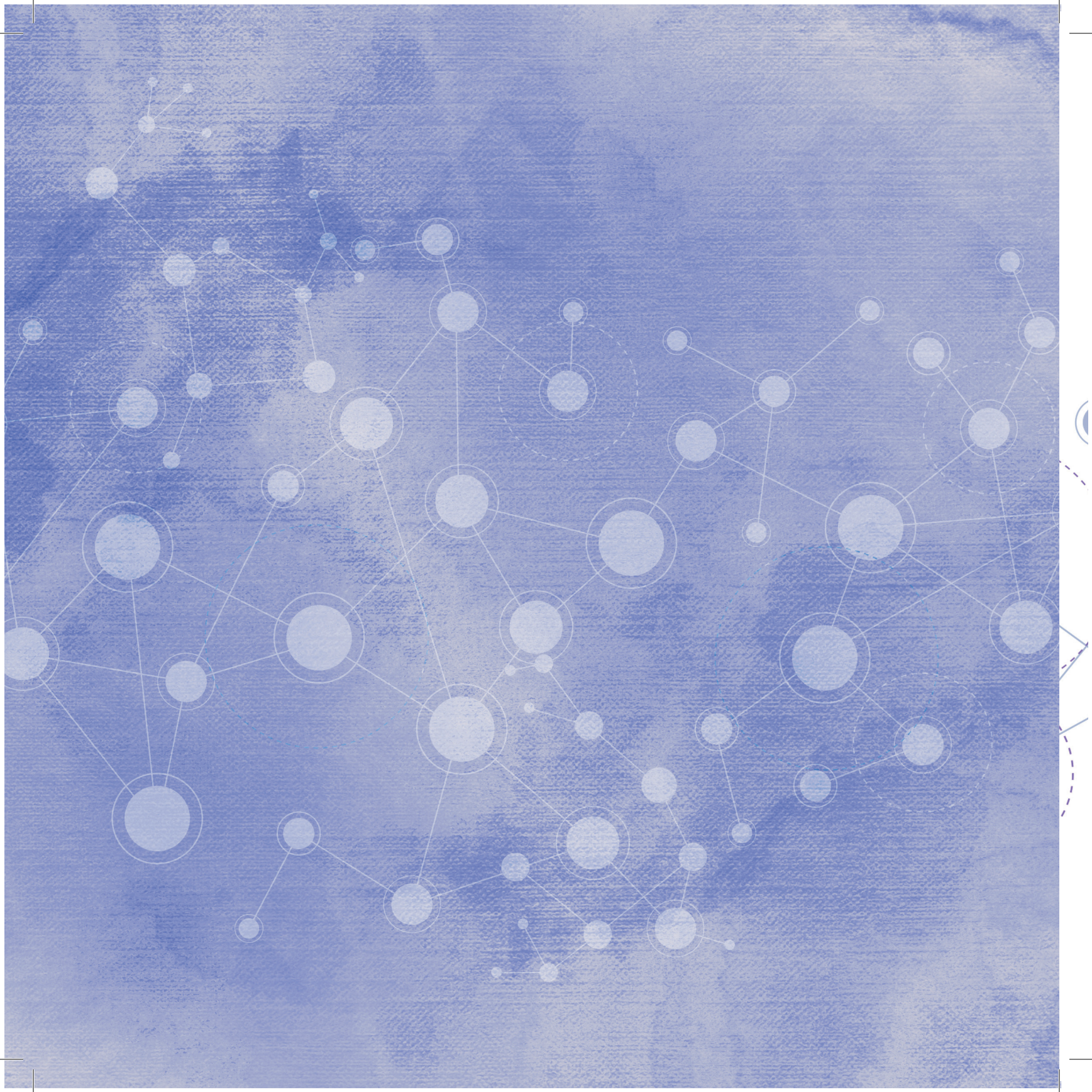
25. **OECD.** Reviews of Health Systems: Colombia 2016 [Internet]. 2015. Available from: http://dx.doi.org/10.1787/9789264248908-en

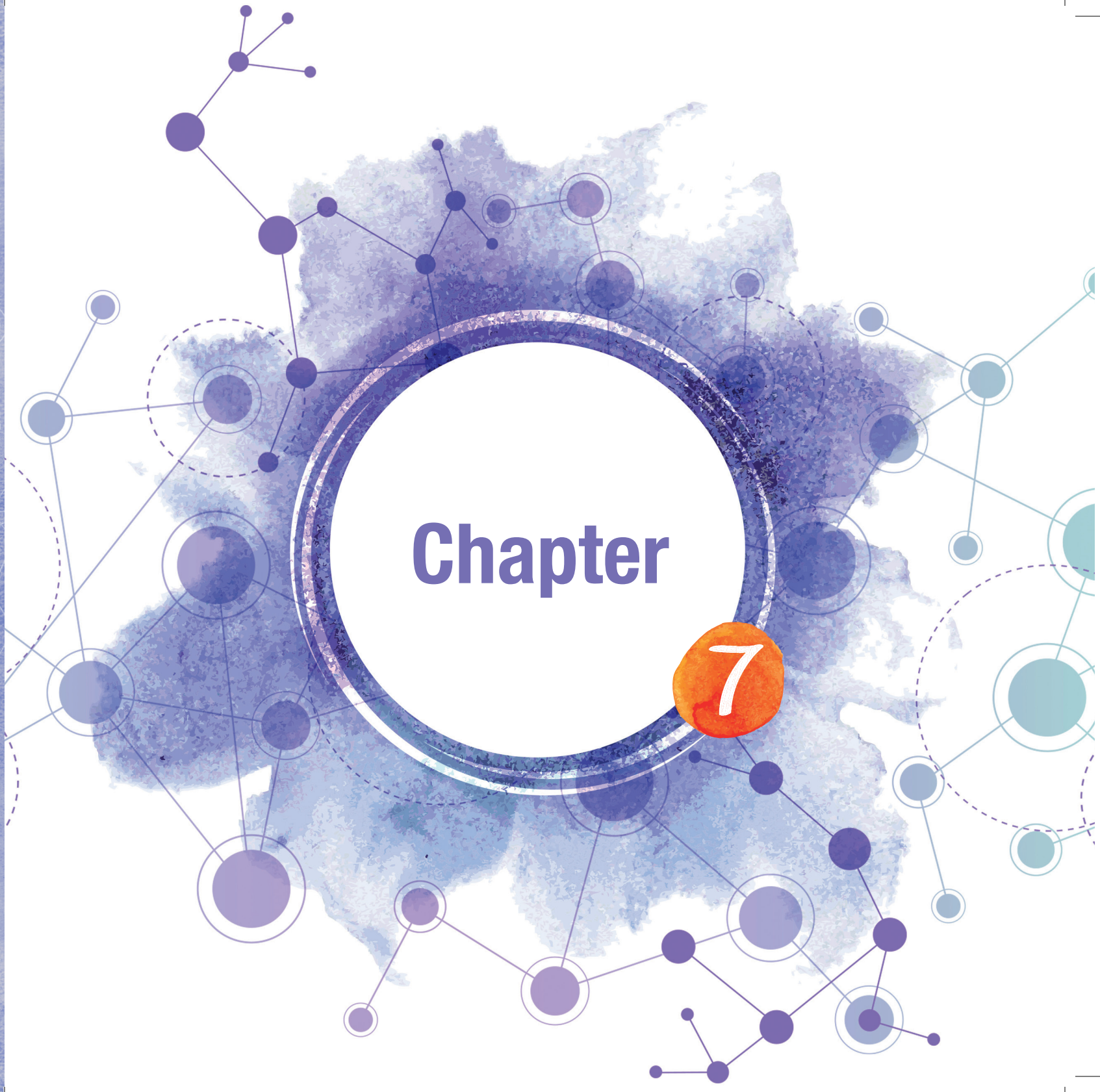
26. **Gurnani MV, Agarwal A.** Healthy lives for all, until the last breath: An interview with Dr. Alejandro R. Jadad Bechara. Univ Toronto Med J [Internet]. 2014 Nov 30 [cited 2016 May 18];92(1). Available from: http://utmj.org/index.php/UTMJ/article/view/1623/1349

27. **Sumner LW.** Welfare, Happiness, and Ethics. Oxford University Press; 1996.

28. **Gauld R.** What should governance for integrated care look like? New Zealand's alliances provide some pointers. Med J Aust. 2014;201(3):67–8.

29. **Mitchell SM, Shortell SM.** The governance and management of effective community health partnerships: a typology for research, policy, and practice. Milbank Q. 2000;78(2):241–89, 151.




Chapter
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Chapter 7

Looking at an integrated healthcare service network from the inside:
The providers' perspective

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Chapter 7

What is the challenge?

Integrated systems have enabled humans with diverse backgrounds and interests to join forces and engage in complex space exploration missions that have made impressive feats possible, from the first successful orbiting satellite and animals in 1957 through having a permanent station for international collaboration since 2000, to sending robotic explorers to practically every celestial body in the Solar System in the 21st century. On Earth, however, integrating services to enable people to achieve optimal levels of health and well-being, continue to be fraught with difficulties.

As has been described in other sections of this book, practically all of the barriers to the integration of services relate to the socio-economic and political context in which they are conceived, designed, developed, implemented and evaluated. This, in turn, manifests through the dysfunction of the individuals and groups who engage in such services and the places where they interact.

The dysfunction of the people involved in health-related activities has a long history that is believed to originate in the 1750s, and to be fed by

class differences and gender issues. Before that time, most health care was provided by women to their parents, husbands, children and neighbours, with little or no financial compensation. With the industrial revolution, health care services became associated with financial gains, as they were perceived as valuable as a means to keep workers active and productive. This shift led to the creation of healthcare professions, which were (and continue to be) "occupational monopolies over the provision of certain skills and competencies in a market for services" (1). As the industrialization of society took hold, the medical profession established itself as the preferred provider of care, with services delivered by male professionals for financial rewards. Concerted efforts were made with increasing intensity to discredit cures offered by untrained healers and midwives (mostly females). As women entered the workforce towards the end of the 19th century, nursing became one of their few professional options, as it reflected their "virtues" (e.g., piety, purity, submission and domesticity) (2). Instead of being treated as equal partners in care, nurses became the physicians' helpers. When other health care professionals emerged, they were also predominantly female occupations, in a hierarchy dominated by male physicians. Members of the "non-medical and "non-nursing" health care professions - often labelled with unfortunate and revealing terms such as "allied health professions" - have had an even harder time to exert control and power within the system.

Since the early portion of the 20th century, the creation of specialties and subspecialties in medicine created even more complex compartments to the fragmented landscape of the system and more factions to the struggle for power. Nursing followed medicine's trend towards increasingly specialized roles, with other professions doing the same to a lesser extent, all compounding the situation (3–5).

Along the way, the public was left out of discussions about the organization or funding of services, with patients placed at the bottom of the hierarchy, save for a few isolated examples of genuine interest in promoting greater alignment of services with their needs, desires and expectations (6).

As the picture was becoming increasingly fragmented within the healthcare professional and the public remained excluded from power structures, and care became more complex, another phenomenon gathered momentum: the rise of a dominant managerial class (7). Initially, this created "a two-headed monster", with top clinicians and top administrators, mostly men too, fighting for control and power within the institutions that the former used to rule unchallenged (8). With the financialization of the healthcare sector, the

tension was resolved in favour of the managers (9). This might explain, at least in part, the trend in many countries for a majority of medical students to be female (10).

As fragmentation took hold through people, the divisions became increasingly apparent in the places where services are provided. As disease complexity and costs increased, funding and decision making power concentrated in hospitals of growing sophistication and internal compartmentalization, to reflect the areas of expertise of medical specialists and subspecialists. These would organize along the lines of diseases (e.g., oncology, rheumatology), organs (e.g., cardiology), systems (e.g., neurology) or services (e.g., emergency, radiology or intensive care), often with poor communication among them and with their own management structure. Services outside of the hospitals would be provided by physicians with various degrees of specialization, who would feel and be treated as second-class citizens by practically every other stakeholder group (11).

The negative effects of fragmentation affect mostly the public, as it leads to unnecessary tests, higher prevalence of medical errors, and poorer clinical outcomes especially for people living with multiple chronic conditions (12,13).

Fragmentation also has a detrimental effect on the mental state of healthcare professionals, who tend to experience high prevalence of burnout, depression, and personal and family negligence, and could also be a major source of distress for managers (14–17).

"The implementation of Compensar's model of integrated health services networks was a great challenge both from a clinical and administrative point of view. However, when ideals and a vision are shared around the patient and his family, the challenges are solved one by one with great success".
Carlos Humberto Tobar González, CEO, Javesalud

What is the opportunity?

From the providers' perspective, integrated healthcare services should deal with fragmentation through the facilitation of at least three types of continuity, each of which would have a different weight depending on the type of provider and the context of care (18):

- Informational continuity, which happens through documentation or accurate verbal description of a person's clinical situation, preferences, values, and circumstances with the intention of creating a common thread linking care from one provider to another, from one healthcare event to another, and from one setting to another.

- Management continuity, which occurs when services are delivered in a complementary and timely manner. It is especially important for people living with chronic or complex clinical diseases who require the involvement of several providers who could work at cross purposes. It is facilitated by shared flexible management plans or consistent care protocols, and regular contact among them.

- Relational continuity, which bridges past, current and future care mainly through the involvement of a stable core team of providers committed to offering a strong sense of predictability and coherence. This is most valued in primary and mental health care, and during long hospital admissions and in nursing homes or other long-term care facilities.

"It is important to define that the essential element that is developed and required in this process and strengthened with each action is that of TRUST, especially to overcome the great weakness of the Integrated Networks in Colombia".
Julio César Castellanos Ramírez, CEO, Hospital Universitario San ignacio

Integration of care across settings has also been shown to increase the levels of satisfaction of providers. A survey at Kaiser Permanente in the United States - where staff members are salaried and work within a close integrated system - showed that among those who participated, roughly 8 in 10 primary care physicians, 9 in 10 medical specialists, 9 in 10 general surgeons or surgical subspecialists, and 9 in 10 physicians working in another discipline reported satisfaction with their day-to-day professional life, with the quality of care they provide and with their income (19).

Care coordinators within integrated care contexts in which they receive good training and support from supervisors and peers, have also reported high levels of job satisfaction, perceived job support, and personal accomplishment, and low levels of disconnection, with a low risk of burnout (20 , 21). Similar findings have been reported from survey of physician assistants and other non-physician care providers working within integrated health organizations (22).

"The point of contact to the system will not be the disease but the health, the human being is who is part of the system and not his disease".
Juan Carlos Castillo Monroy, Manager, Asistir Salud IPS

What has been achieved?

The central role that was given to trusting relationships during the development of Compensar EPS's integrated healthcare network was crucial in securing the enthusiastic participation of hospitals, ambulatory care institutions emergency rooms and home-based care, to align their activities across multiple levels of complexity. The emphasis placed on the elimination of duplication of efforts and most importantly, the improvement of the lived experience of affiliates, enabled managers and healthcare providers in each participating institution to change their work patterns, to understand that their success depends on their level of coordination and collaboration.

The network is the product of a collective construction where from the beginning the value of each one of the parts that integrate it was understood, giving special emphasis to the primary level of attention, with an interdisciplinary team that allows the affiliates to work closely with a personal physician who has easy access to colleagues and other disciplines at all levels of complexity, and can facilitate the smooth transitioning across a highly diverse collection of settings, being recognized as a key valued player by specialists and subspecialists within highly-complex care environments.

Thanks to a powerful digital platform, it has been possible to reduce unnecessary duplication of tests, and to ensure credibility across institutional and professional lines through transparent access to patient information in real time and easy communication at all levels.

A distinctive feature of Compensar EPS's network is its involvement of a rich community of members institutions with a highly diverse origin, purpose and legal structure, including religious entities, foundations, family businesses, private clinics and university hospitals, among others, turning heterogeneity into a strength. This has contributed enormously to the introduction of a successful hospital-at-home program, which enables patients to pass over hospital inpatient units to be cared in their own homes, regardless of the level of complexity, and with funding packages for providers that are equivalent to those found in secondary and tertiary level institutions.

Technology and information systems began to contribute to the management of the network once agreements were reached on the information to be shared. The databases of the population became important and served as a platform for professionals to make direct contact outside walls with users, such as pregnant women who have expressed complacency at being approached during their pregnancy by a health institution, including out-of-hospital support. which has meant better health outcomes and greater user satisfaction.

The communication channels enabled by the platform and the strong personal links of team members across institutional lines, have also allowed specialists and personal health physicians to learn from each other and trust each other, reducing the time needed to resolve clinical issues in a small fraction of the time required before the creation of the network. A figure that has played a major role in this successful development is the "professional liaison" who is responsible for optimizing interinstitutional connection and communication across institutional, geographic and professional boundaries. This liaison also acts as a bridge the hospital and ambulatory centres, with the integration nodes, with the cohorts, with the external auditors and the insurer. Working hand in hand with the rest of the affiliate's team, the professional liaison spearheaded a significant improvement in the operative processes leading to a substantive shortening of wait times, reduction of costs due to avoidance of duplication of efforts and the consolidation of the performance indicators of the network.

This improvement of the alignment of the views, processes and activities of multiple professionals extends to other clinical areas, such as nutrition, psychology and nursing. This has facilitated the creation of insulinization clinics, a place where a person living with diabetes can attend group workshops at the ambulatory centre, also learning in a personalized way about the appropriate adjustment of insulin doses with a noticeable reduction in the hospitalization rate due to hypo- and hyperglycemia.

The integration of administrative and clinical teams has also evolved well. A case in point is the coordination of physical medicine and rehabilitation. Different strategies, training and continuous professional development for therapeutic personnel and general practitioners at the primary care level were carried out through courses and spaces for debate focused on increasing levels of resolutivity, reducing referral rates, increasing job satisfaction and reducing burnout rates.

"This model has allowed to restore the trust of patients in a trained professional who coordinates all their needs, who knows him and whom he can go with the confidence that he is never unprotected".
Ricardo Rozo, Cardiologist, Specialized Health Service

"Being a participant in the creation of the integral health services network system of Compensar EPS, has been an important activity in the development of my work as a medical specialist due to the challenge of integrating the different actors of the current health system and trying to optimize the existing resources".
Juan Manuel Guevara, Physiotherapist, IPS Rangel Medicina Física y Rehabilitación

As a result of the involvement with the network, several member institutions increased the size of the population affiliated to Compensar, and improved their cash flow. This released funds to be invested in the execution of the strategic projects of common interest, aimed at growing the number of services and improving their quality, and in greater job stability for the providers, which in turn contributed to lowering administrative costs, reinforcing the virtuous cycle of benefits for all involved.

In order to have a more systematic perspective from the point of view of the providers of the network, in October 2018 a survey was conducted with two questions aimed at identifying the favorable attributes of the network and the aspects that should be improved. Seven out of nive hospitals and nine out of 10 ambulatory institutions responded, in addition to those who share their experience in this chapter as authors. From this exercise, four categories emerged as favorable attributes of the network (Table 7.1) and five as aspects to be improved (Table 7.2).

Table 7.1.

Categories perceived as favorable by service providers

	Better health outcomes, thanks to close follow-up of patients and their loved ones by the personal physician, by the improvement in access and continuity of care, and by joint efforts to prevent complex adverse events. As a result of the above, it has been possible to reduce costs.
	Participation in the governing body, which has allowed high levels of trust and respect across all institutions, facilitates teamwork and clarifies the role that each stakeholder plays in the network.
	The amount and quality of clinical information available for providers and affiliates through the interoperable information system. This also improves the diagnostic and therapeutic capacity, and reduces the duplication of laboratory tests and diagnostic imaging.
	More fluid and assertive communication between providers and Compensar, and greater administrative expediency.

Table 7.2.

Aspects to be improved within the network

	Expansion of the coverage of services that are not yet included in the master database of the interoperable information system and improvement in the time of information uploading.
	Broadening of the coverage of the clinical practice guidelines adopted by the network to facilitate technical-scientific alignment across different levels of care.
	Increasing the level of integration between different professionals and specialists, and facilitate that new arrivals quickly integrate into the network.
	Improving communication with affiliates, to allow them to have greater awareness and understanding of the benefits of the network. and how to access it.

All of the above has required continuous operational conditioning to integrate efforts among all stakeholders to the processes agreed by all parties, and constant reinforcement of the actions by the participating institutions with their commitment to the common good. This has facilitated the exercise of the rights and responsibilities of the affiliates, the high level of proficiency and humanism among the providers, and the enthusiastic embrace of ethical values by administrators and managers. Thus, working together has become part of the cultural lives of this integrated healthcare service network fueled by trust.

"The network has meant a decrease in the cost of the care of some pathologies up to 50% in the last 3 to 5 years and a reduction of 1.5 days of stay. The adjusted average stay index, IEMA, is also below 1, which indicates greater efficiency in the use of this resource when compared with hospitals in Spain and the USA".
José Ignacio Zapata S, CEO, Instituto Roosevelt

What needs to be done?

Although the consolidation of the network has dealt with many of the challenges that persist in fragmented healthcare systems, the following are priority areas for the governing body and their teams to address in the near future:

- The introduction of mechanisms to promote the maintenance of the high level of trust that has been earned so far, giving it a more explicit role at all levels and in all settings.

- More frequent and detailed assessment of the levels of job satisfaction of all service providers, administrators and managers, with explicit components focused on burnout, and the development of a program devoted to the protection of what is working and to identify areas for improvement.

- Reinforcement of ongoing efforts to eliminate administrative processes that do not add value to the affiliates and front-line providers, particularly around billing and clinical audits.

- The development of economies of scale around logistic processes, administration of contracts, purchases of medicines, diagnostics and surgical supplies.

- Ongoing continuing professional development initiatives on the history, nature and evolution of the integrated network model itself, and on the use of tools to improve the work of health teams.

- A joint effort to identify, and mitigate or correct threats to the sustainability of network members, especially when they result from innovations seeking to enhance the level of integration of services.

All of this would be enriched with initiatives designed to foster a shift in the emphasis of the network from the fight against diseases to the creation of optimal levels of health and well-being for all those who bring it to life.

References

1. **Hall P.** Interprofessional teamwork: professional cultures as barriers. J Interprof Care. 2005 May;19 Suppl 1:188–96.

2. **Stuart ME.** Nursing: the endangered profession? Can Nurse. 1993 Apr;89(4):19–22.

3. **Castledine G.** Will the nurse practitioner be a mini doctor or a maxi nurse? Br J Nurs. 1995;4(16):938–9.

4. **Marshall Z, Luffingham N.** Does the specialist nurse enhance or deskill the general nurse? Br J Nurs. 1998;7(11):658–62.

5. **Aggarwal R, Grantcharov TP, Darzi A.** Framework for systematic training and assessment of technical skills. J Am Coll Surg. 2007 Apr;204(4):697–705.

6. **Latimer T, Roscamp J, Papanikitas A.** Patient-centredness and consumerism in healthcare: an ideological mess. J R Soc Med. 2017 Nov;110(11):425–7.

7. **Richard Scott W, Ruef M, Mendel PJ, Caronna CA.** Institutional Change and Healthcare Organizations: From Professional Dominance to Managed Care. University of Chicago Press; 2000. 427 p.

8. **Cinaroglu S.** Complexity in healthcare management: Why does Drucker describe healthcare organizations as a double-headed monster? International Journal of Healthcare Management. 2016 Jan 2;9(1):11–7.

9. **Widmer A.** Of means and ends: The financialization and regulation of health care. Linacre Q. 2016 Nov;83(4):382–6.

10. **Syed MMA.** Gender bias in healthcare workforce: Is it time to ponder? International Journal of Students' Research. 2017 Jul 1;7(2):17.

11. **Budrys G.** Our Unsystematic Health Care System. Rowman & Littlefield Publishers; 2011. 178 p.

12. **McWilliams JM.** Cost Containment and the Tale of Care Coordination. N Engl J Med. 2016 Dec 8;375(23):2218–20.

13. **Jencks SF.** Defragmenting care. Ann Intern Med. 2010 Dec 7;153(11):757–8.

14. **Montgomery A, Panagopoulou E, Kehoe I, Valkanos E.** Connecting organisational culture and quality of care in the hospital: is job burnout the missing link? J Health Organ Manag. 2011;25(1):108–23.

15. **Montgomery A.** The inevitability of physician burnout: Implications for interventions. Burnout Research. 2014 Jun 1;1(1):50–6.

16. **Mitton C, Peacock S, Storch J, Smith N, Cornelissen E. Moral Distress among Healthcare Managers: Conditions, Consequences and Potential Responses.** Healthc Policy. 2010 Nov;6(2):99–112.

17. **Shanafelt TD, Boone S, Tan L, Dyrbye LN, Sotile W, Satele D, et al. Burnout and satisfaction with work-life balance among US physicians relative to the general US population.** Arch Intern Med. 2012 Oct 8;172(18):1377–85.

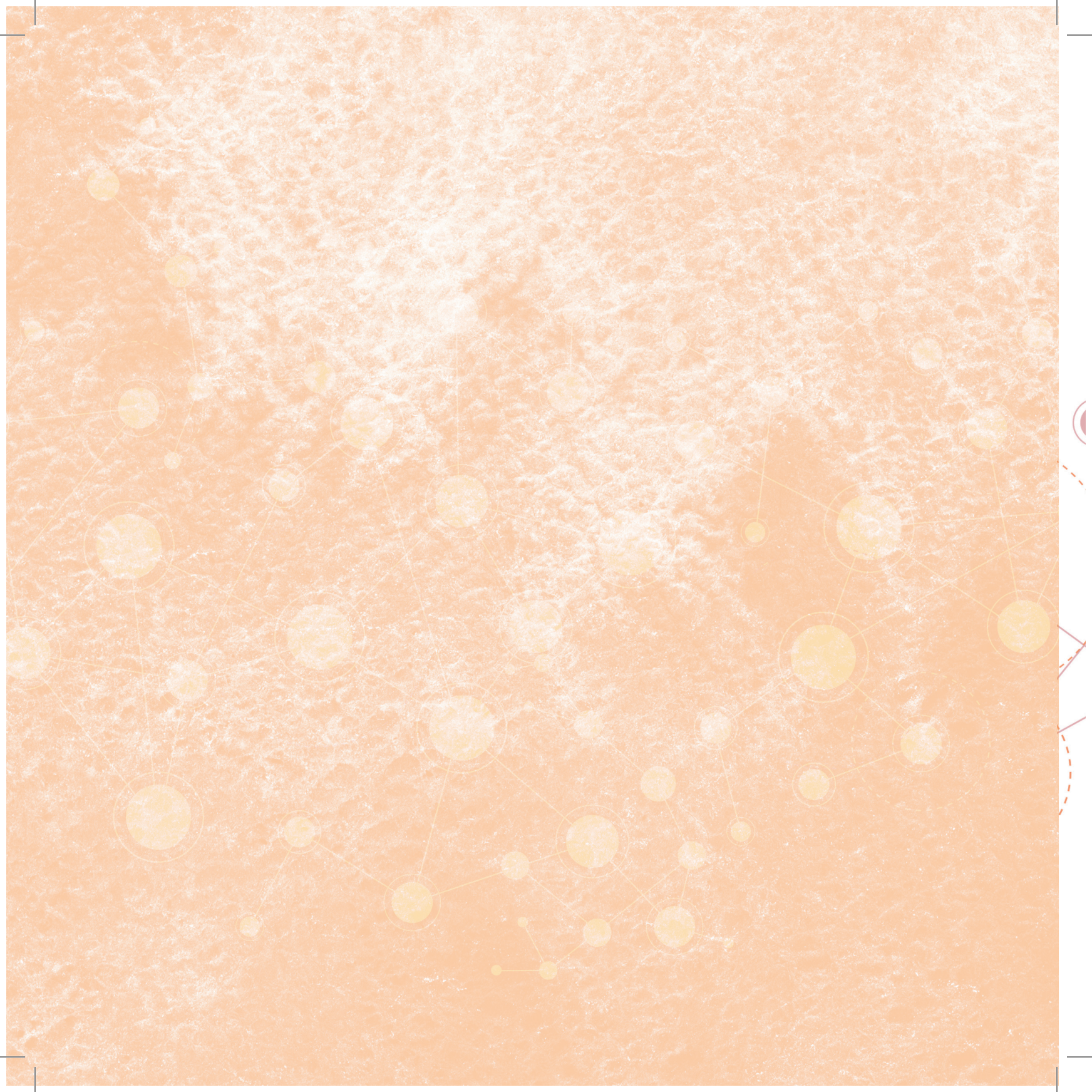
18. **Haggerty JL, Reid RJ, Freeman GK, Starfield BH, Adair CE, McKendry R.** Continuity of care: a multidisciplinary review. BMJ. 2003 Nov 22;327(7425):1219–21.

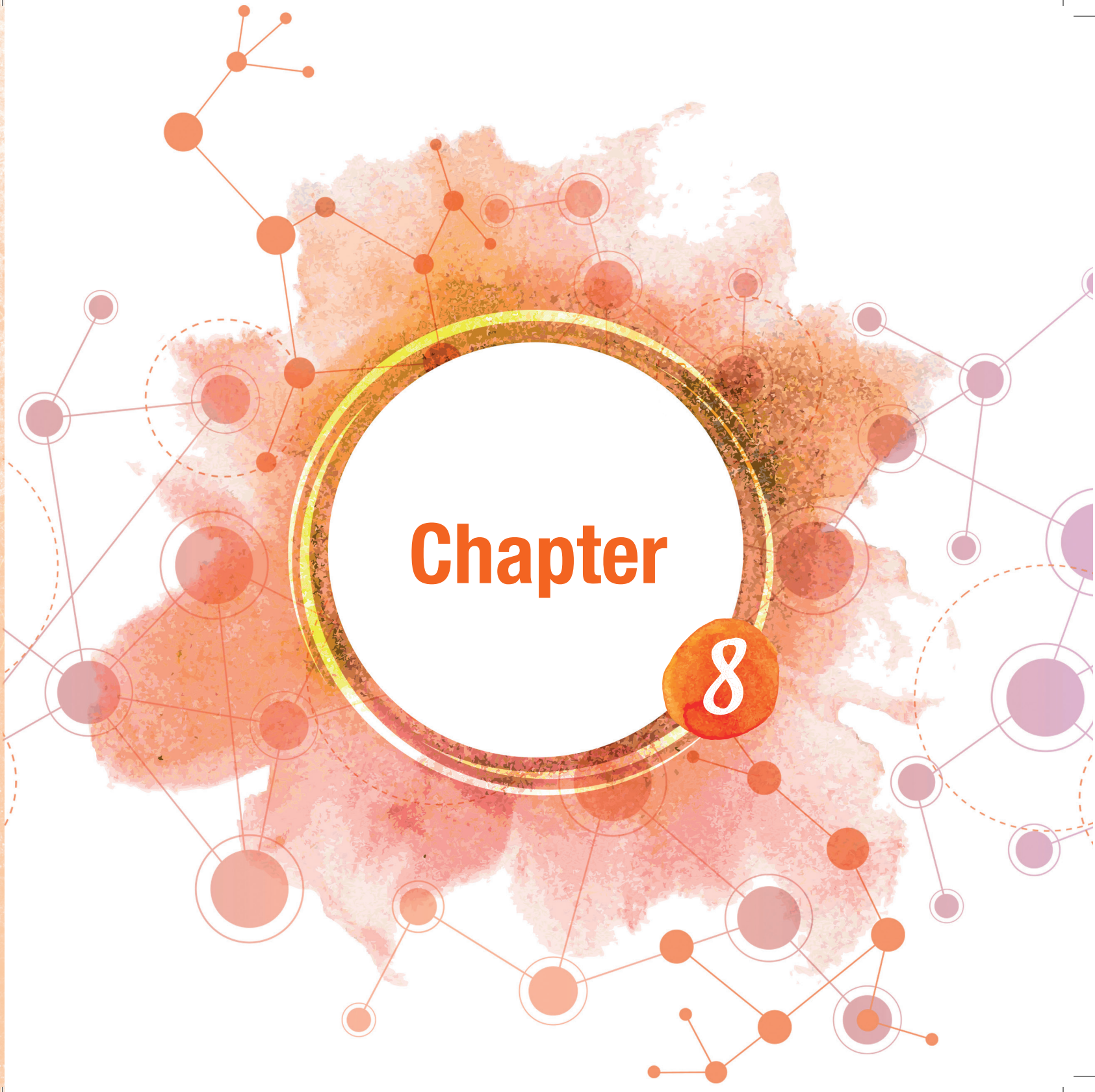
19. **Caloyeras JP, Kanter M, Ives N, Kim CY, Kanzaria HK, Berry SH, et al.** Physician Professional Satisfaction and Area of Clinical Practice: Evidence from an Integrated Health Care Delivery System. Perm J. 2016 Apr 1;20(2):35–41.

20. **Au M, Kehn M, Ireys H, Blyler C, Brown J.** Care Coordinators in Integrated Care: Burnout Risk, Perceived Supports, and Job Satisfaction. Am J Prev Med. 2018 Jun;54(6S3):S250–7.

21. **Lee J (jay), Ok C.** Reducing burnout and enhancing job satisfaction: Critical role of hotel employees' emotional intelligence and emotional labor. Int J Hosp Manage. 2012 Dec 1;31(4):1101–12.

22. **Freeborn DK, Hooker RS.** Satisfaction of physician assistants and other nonphysician providers in a managed care setting. Public Health Rep. 1995 Nov;110(6):714–9.




Chapter
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Fossa di Kiribati
Fossa di Kermadec
Fossa di Tonga
Fossa di Hjort
Fossa di Macquarie
Fossa di Puysegur
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Fossa di Hunter
Fossa di Vityaz
Fossa di Mussau
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Fossa di Yap
Fossa di Palau
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Fossa di Shetland Meridionale
Fossa di Orcadi Meridionale
Fossa di Tristan da Cunha
Fossa di Gough
Fossa di Meteor
Fossa di Nares
Fossa di Puerto Rico
Fossa di Barbados
Fossa di Romanche
Fossa di Ascension

Chapter

8

Evaluating an integrated healthcare network as a country:
A comparison of Compensar EPS with members of the Organization for Economic Development and Cooperation

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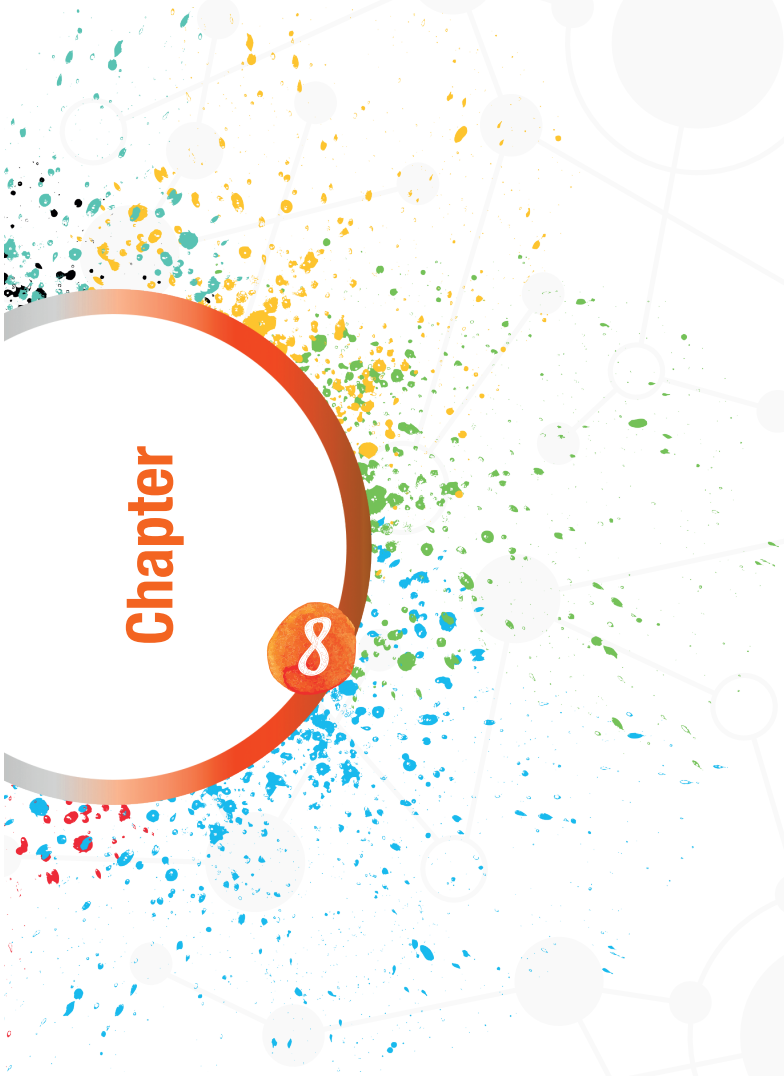


What is the challenge?

One of the most obvious ways to evaluate health systems, or a healthcare networks in particular, is by comparing them with their peers. This is far from easy, as identifying simple, practical and useful ways to assess their performance remains a complex task (1), mainly because health systems and networks are tricky to conceptualize; typically include different combinations of structures, processes and intended outcomes, which increase the risk of comparing apples and pears; and are part of a much larger and poorly understood ecosystem of interconnected individuals, communities and organizations that could influence human health, often with highly variable and insufficiently documented levels of financial and technological resources.

The difficulties to compare systems or networks are unsurprising, as they reflect their highly heterogeneous evolution around the world. In fact, the notion of an organized healthcare system, one created to benefit the population as a whole, is fairly new. Most services until the late part of the 19th century were provided by private practitioners or by institutions run by religious

or other philanthropic organizations, without clearly separate levels of care, lack of referrals among them, and that offered little protection from financial risk apart from a weak safety net provided by charities or by small-scale efforts by workers in the same occupation to pool resources among them (2).

Our modern systems and networks began to emerge in response to threats to the political and economic leaders of the countries in which the industrial revolution was causing large numbers of deaths, illness and disability among workforces, whether from infectious diseases or from industrial accidents and exposures to chemicals. Wars were another propeller of change, as it became increasingly clear that soldiers were more likely to be killed by disease than by their enemies. To protect themselves, their power and their profits, heads of state and company owners began providing medical services to keep employees actively working, and troops actively fighting.

The first example of a state-mandated social insurance model was given by Bismarck, the Chancellor of Germany in 1883, as a means of avoiding a take over by unions with sickness funds. This was so popular that other countries followed quickly, restricting protection only for employed people, and excluding their families and the rest. Following the Bolshevik revolution in 1917, Russia became the first nation in which free medical care would be provided for the entire population, as part of a completely centralized and state-controlled model. This was the exception until the end of the Second World War, when the destruction of the health infrastructures in most countries, and the need to show the population that the sacrifice had been justified, motivated governments to introduce health systems with universal coverage, beginning with the National Health Service (NHS) in the United Kingdom in 1948.

Since the creation of the NHS, most health systems in the world have adopted and refined one or more of its design components and followed the aims that were inspired by the end of the war, leading to a multiplicity of approaches with a highly heterogeneous mix of private and public funding, a myriad formulas to guide service provision, and very variable degrees of emphasis on primary or specialized care.

Under these circumstances, obtaining valid comparisons of systems has been a contested issue. One of the approaches used to date has been limited to rankings based on descriptions and quantification of indicators meant to reflect the level

of performance of national health systems (3). The most extensive effort used to obtain rankings was spearheaded by the WHO and based on three types of indicators, related to the effectiveness of the healthcare system in reducing mortality and morbidity, to the responsiveness of the system to the user, and to the fairness of the system. The resulting report, which was published in 2000, received strong criticism, mainly because of the use of a single score, which was meant to weight the indicators and reflect overall system performance. This was compounded by concerns about the assumptions behind the indicators themselves, including an unwarranted expectation for the role of medicine in reducing morbidity and mortality in a country, the use of anonymous informants to determine the level of response to users, and a very limited approach to the progressiveness of the funding, which failed to take into account whether the contributions made by people to health services were proportional to their income levels, among other limitations (4).

The other two approaches to ranking, one sponsored by the Commonwealth Fund and the other, known as "Most efficient health care", by Bloomberg, have even more flaws, especially in terms of the statistical handling of the data available (3).

Given the limitations of rankings, based on the description and analysis of retrospective data, an alternative approach is to engage the countries themselves in the process and reach agreement on the indicators that will be used to assess the performance of their health systems. This approach has obvious advantages: as it is prospective, it enables action by the participating countries; as it is collaborative, it yields data of greater quality; and as it is consensual, it promotes continuous improvement on the basis of the findings. Such an approach is the one pursued by the Organization for Economic Cooperation and Development (OECD).

The OECD was created to replace the Organisation for European Economic Co-operation (OEEC), an entity that had been created in 1948 to administer American and Canadian aid for the reconstruction of Europe after the second world war, as part of the Marshall plan. By 1960, with this job effectively done, some leading countries felt that the organization could be adapted to fulfill a more global mission, and after bringing the US and Canada as members, gave birth to the OECD in 1961. Since then, it has been expanding and is driven currently by the mission of promoting "policies that will improve the economic and social well-being of people around the world" (5), guided by more than 200 committees and working groups of national experts and decision-makers from its member states. Rather than ranking the

countries, the OECD reports on indicators in 26 different areas, enabling each of the participating countries to draw lessons and insights to improve their own performance.

One of the key areas of interest of the OECD since its inception has been health, which has been assessed using 12 categories of indicators. In 2001, they launched the Health Care Quality Indicators Project, with the aim of "developing international comparisons of health care quality and, thereby, identifying and sharing best practices to monitor, assure and improve quality" (6–8). This work involved experts from OECD and non-OECD countries, the WHO and the European Commission, and has been complemented with continuous research and development to improve the validity, utility and comparability of the indicators, and efforts to strengthen national information infrastructures to produce more complex and reliable data even from non-OECD countries (9). In 2016 and 2017, the initial set of quality indicators underwent review, leading to a reduction from 70 to 55 (10). Such list, together with the other categories, now opens new avenues to compare country-level and regional systems (11,12).

Given the number of affiliates, the integrated healthcare network nurtured by Compensar EPS could act as a mini-model for an entire national health system.

What is the opportunity?

The indicators developed by the OECD to enable comparisons across countries and regions could also be invaluable for healthcare service networks interested in finding out how they are doing and in identifying areas for improvement. These indicators have also been used successfully to evaluate the performance of hospitals and ambulatory services (13,14). To date, however, to the best of our knowledge, they have not been used to compare healthcare networks with each other, or even less, to compare the performance of large networks with that of the country members of the OECD.

It could be argued that, given the number of affiliates, the integrated healthcare network nurtured by Compensar EPS could act as a mini-model for an entire national health system. With more than 1.3 million people served, its population is similar to that of Estonia, four times that of Iceland and more than twice Luxembourg's and is spread over an area more than nine times larger than the latter (22,623 vs. 2,586 sq. km).

This comparison is also of potential value at a time when Colombia has just entered the OECD, as it could provide an internal reference point for decision makers interested in adopting some of the practices embraced by this integrated service network.

Comparing the indicators of a single network with those of entire countries, has many limitations. Obviously, unless the entire country operates as a integrated ecosystem of services, the results might favour the individual network, especially with regards to clinical indicators under its control. Conversely, the results achieved by the network could be negatively affected by external factors - regional or national - that it could not modify, particularly those that reflect government policies. Such comparisons could also act as a good source of methodological inquiry, particularly in terms of what could be attributed to networks themselves, ideally by comparing them with their peers in similar contexts, and with the indicators of the countries in which they operate.

What has been achieved?

A profile of Compensar EPS as a country was produced on the basis of the demographic indicators used by the United Nations to summarize the characteristics of its member states (15), as the OECD ceased to collect and report data on them in 2015 (16). The main findings are summarized in Table 8.1.

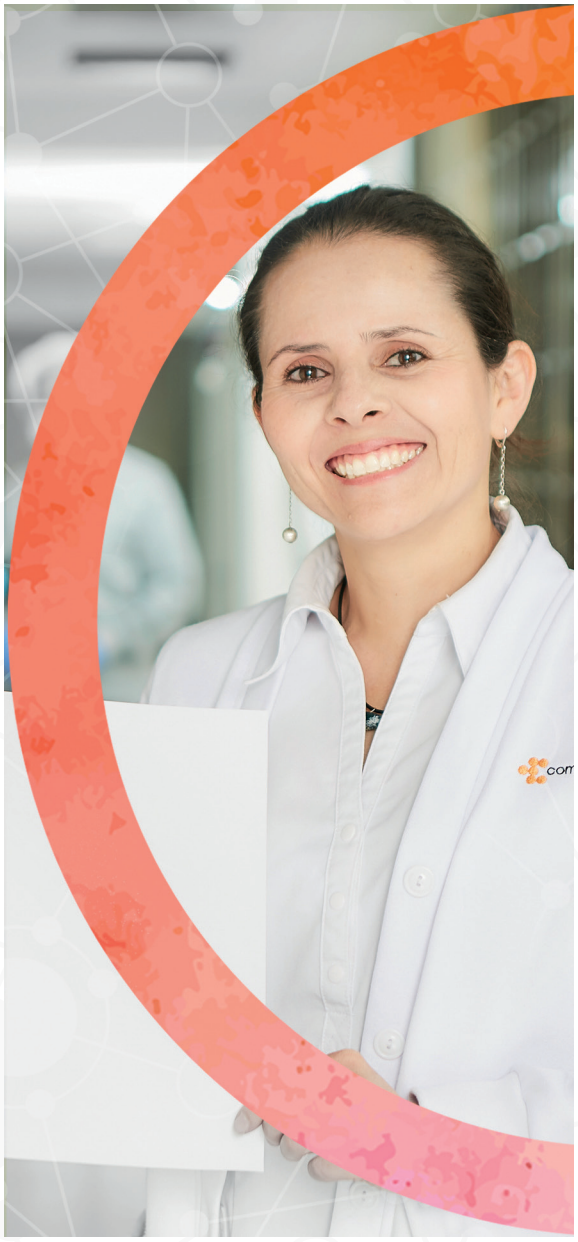
Table 8.1.

Demographic characteristics of the population of Compensar EPS affiliates

VARIABLE	2016	2017
Total population (thousands)	1.161.387	1.302.909
Males (thousands)	539,555	606,036
Females (thousands)	621,832	696,873
Proportion of population below 15 (%)	19,6%	19,2%
Proportion of population aged 15 - 59 (%)	69,6%	69,0%
Proportion of population aged 60 or over (%)	10,8%	11,8%
Proportion of population aged 80 or over (%)	1,2%	1,3%
Child dependency ratio (per 100)	15,1%	14,7%
Old age dependency ratio (per 100)	23,6%	23,9%
Life expectancy at birth, total (years)		76,01
Infant mortality rate (per 1,000 live births)	5,7	5,3

All indicators listed under the health dimension of the OECD catalogue were analyzed by a team that included all of the editors of the book, plus an external epidemiologist who was tasked with overseeing the data analysis process. This group looked at them and excluded those that were outside the jurisdiction of the network (e.g., pharmaceutical sales, life expectancy at birth or the levels of air pollution). They then selected all of the indicators for which the information system of Compensar EPS could generate figures, using the criteria established by the OECD for data collection. This process yielded a total of 33 indicator categories for which there were comparable data, using 2016 and 2017 as the reference years. Of these, there were data available for 13 of the 55 individual Health Care Quality Indicators.

The results obtained for each indicator were then compared with those of all of the 36 OECD members for which data were available, viewing Compensar as an additional country. Data from countries that were regarded as partners or were part of accession discussions in October of 2018 were excluded. In the countries where information for the reference years was not available, the data from the immediately preceding year was taken, whenever they were reported. Statistical analysis was conducted using Stata 13.0 (StataCorp, Texas, USA).



For the purposes of this book, emphasis is placed on the Health Care Quality Indicators (Table 8.2). These are complemented by a selection of other indicators that are deemed to be under the influence of the network and could be of interest to readers in other aspects of service quality because they were specially favourable or unfavourable to Compensar (Table 8.3), or that would give an idea of the physical resources accessible to its affiliates (Table 8.4). The entire set is available upon request.

For each indicator, the absolute value for the network (labeled as "Compensar") is provided; followed by the highest and lowest values in each case, Compensar's ranking and total number of countries that provided data.

As seen below, all but one of the 13 Health Care Quality Indicators for which there were data available placed Compensar in the top 10 of the OECD countries. The outlying indicator was 'Postoperative deep vein thrombosis after hip or knee replacement' for which Compensar was ranked 13th, without a single reported case of embolism.

This effort provides useful lessons on how to position high-performance networks as models for the improvement of national health-care systems, worldwide.

Table 8.2.

Health care quality indicators

INDICATOR	COMPENSAR EPS
PRIMARY CARE	
Asthma hospital admission (per 100,000 people aged 15 and over)	21.4 (2017)
Chronic obstructive pulmonary disease hospital admission (per 100,000 people aged 15 and over)	115.3 (2017)
Asthma and chronic obstructive pulmonary disease hospital admission (per 100,000 people aged 15 and over)	136.7 (2017)
Congestive heart failure hospital admission (per 100,000 people aged 15 and over)	107.8 (2017)
Hypertension hospital admission (per 100,000 people aged 15 and over)	17.6 (2017)
Congestive heart failure and hypertension hospital admission (per 100,000 people aged 15 and over)	125.4 (2017)
Diabetes hospital admission (per 100,000 people aged 15 and over)	58.2 (2017)
PRESCRIBING IN PRIMARY CARE	
Elderly patients with long-term prescription of benzodiazepines or related drugs (for 1000 people aged 65 and over)	1.5 (2017)
Elderly patients with prescription of long-acting benzodiazepines or related drugs (for 1000 people aged 65 and over)	22.9 (2017)
PATIENT SAFETY	
Foreign body left during procedure (for 100,000 discharges of 15 years and over)	1.9 (2017)
Postoperative pulmonary embolism after hip or knee replacement (for 100,000 discharges of 15 years and older)	0.0 (2017)
Postoperative deep vein thrombosis after hip or knee replacement (for 100,000 discharges of 15 years and older)	665.2 (2017)
Postoperative wound dehiscence (for 100,000 discharges of 15 years and over)	16.1 (2017)

HIGHEST VALUE (COUNTRY, YEAR)	LOWEST VALUE (COUNTRY, YEAR)	COMPENSAR RANKING	COUNTRIES THAT REPORTED THE INDICATOR INCLUDING COMPENSAR
PRIMARY CARE			
119.4 (Latvia, 2015)	7.6 (Italy, 2015)	8	36
367.6 (Ireland, 2015)	23.5 (Japan, 2011)	9	36
427.5 (Hungary, 2012)	58.1 (Japan, 2011)	7	36
575.8 (Lithuania, 2015)	62.1 (Mexico, 2015)	8	34
350.2 (Slovak Republic, 2015)	12.0 (Spain, 2015)	8	34
768.8 (Lithuania, 2015)	114.2 (United Kingdom, 2015)	2	34
291.8 (Mexico, 2015)	39.7 (Italy, 2015)	4	36
PRESCRIBING IN PRIMARY CARE			
66.8 (Ireland, 2015)	0.3 (Turkey, 2015)	2	17
192.0 (Korea, 2015)	1.3 (Turkey, 2015)	6	18
SEGURIDAD DEL PACIENTE			
12.3 (Switzerland, 2015)	0.2 (Poland, 2015)	3	14
549.2 (Australia, 2014)	0.0 (Compensar, 2017)	1	15
1328.4 (France, 2015)	46.0 (Portugal, 2015)	13	15
1105.9 (Portugal, 2015)	16.1 (Compensar, 2017)	1	15

Health Status indicators were a mixed bag, with perceived health status ranked first among OECD members. The data were generated in 2018 from a representative sample of 5 797 affiliates interviewed by an independent firm from July to November of 2018. Another favourable result was related to the overall incidence for malignant neoplasms, for which Compensar ranked second. There were concerning results, on the other hand, around indicators related to pregnancy and childbirth, as Compensar ranked within the bottom 10 for maternal, neonatal and perinatal mortality, and last for low birthweight. This was also the case for the incidence of Acquired immunodeficiency syndrome (Table 8.3).

Table 8.3.

Selected health status indicators

INDICATOR	COMPENSAR EPS	HIGHEST VALUE (COUNTRY, YEAR)	LOWEST VALUE (COUNTRY, YEAR)	COMPENSAR RANKING	NUMBER OF COUNTRIES THAT REPORTED THE INDICATOR INCLUDING COMPENSAR
Perceived health status	88,6 (2018)	88.6 Compensar, 2018)	32.5 (Corea, 2016)	1	37
Cancer - Malignant neoplasms (incidence per 100.000 population)	134.1 (2017)	338.1 (Denmark, 2012)	131.5 (México, 2012)	2	37
Maternal mortality (deaths per 100.000 live births)	8.5 (2017)	51.4 (Colombia, 2017)	0.0 (Norway,2016)	28	37
Neonatal mortality (deaths per live 1000 births)	4.9 (2017)	7.5 (México, 2016)	0.5 (Iceland, 2016)	34	37
Perinatal mortality (deaths per 1000 live births)	8.7 (2017)	11.7 (México, 2016)	2.4 (Japan, 2016)	35	37
Low Birthweight (% of total live births)	11.0 (2017)	11.0 (Compensar, 2017)	4.1 (Estonia, 2016)	37	37
Acquired immunodeficiency syndrome (AIDS) (incidence per 100.000 population)	35.6 (2017)	35.6 (Compensar, 2017)	0.1 (Germany, 2016)	37	37

Data on indicators related to health care resource utilization showed that the network ranked first in terms of the lowest percentage of patients who waited more than three months for cataract surgery and the highest percentage of women screened for cervical cancer (Table 8.4).

Table 8.4.

Selected health care resources and utilization indicators

INDICATOR	COMPENSAR EPS	HIGHEST VALUE (COUNTRY, YEAR)	LOWEST VALUE (COUNTRY, YEAR)	COMPENSAR RANKING	NUMBER OF COUNTRIES THAT REPORTED THE INDICATOR INCLUDING COMPENSAR
Waiting times - Cataract surgery (% of all patients waiting more than 3 months)	4.9 (2017)	87.7 (Estonia, 2017)	4.9 (Compensar)	1	11
Waiting times - Cataract surgery (mean days)	48.3 (2017)	1426.0 (Estonia, 2017)	47.1 (New Zealand, 2016)	2	11
Cervical cancer screening (% of females aged 20-69 screened)	86.3 (2017)	86.3 (Compensar, 2017)	16.4 (México, 2017)	1	28
Breast cancer screening (% of females aged 50-69 screened)	74.0 (2017)	82.2 (Finland, 2016)	22.6 (México, 2017)	7	28

During this benchmarking exercise, data were also collected on indicators deemed to be compatible with the triple aim (17). Their analysis suggests that the network could make a strong case in terms of attaining it, as there was evidence of a high level of population health and satisfaction with care, with low associated costs per capita.

These results have been achieved with a direct per capita expenditure level of US$ 551 (2016) and US$ 606 (2017) (adjusted for purchasing power parity, or PPP). This is lower than the US $ 856 per capita per year that Colombia reported in 2015, because it excludes government spending for public health campaigns, including vaccinations in rural areas, among others. It is of note that Colombia ranks as the fourth country with the lowest expenditure among the OECD member countries, and as the fourth with the lowest expenditure including partner countries, following China, Indonesia and India. Such expenditure is equivalent to one fourth of the average of the 36 countries members of the OECD (US $ 3,826 in 2015)

There is also evidence indicating that the network could have also attained the quadruple aim (18)(Table 8.5). A survey of 1141 health professionals who are employed by Compensar and who provide ambulatory services to its affiliates in 18 different locations was conducted in 2016 as part of an organization-wide benchmarking effort commissioned to Great Place to Work. This generated data on five essential dimensions for the work environment: credibility, respect, impartiality, camaraderie and pride. Each one of these dimensions is assessed using 26 indicators that allow the calculation of an overall Work Environment Index (WEI). A total of 1016 professionals responded (89% response rate), generating score above the average within the sector: credibility 65 (+21); respect 66 (+30); impartiality 77 (+38); camaraderie 74 (+31); and pride 81 (+27). The overall WEI was 75.3, above the mean obtained by organizations in the same economic sector in Colombia, but below those of the workers at Compensar as a whole. This figure, on the other hand, is similar to that obtained in the same exercise in 2014, despite the introduction of interventions designed to improve it.

Table 8.5.

Indicators associated with the triple and quadruple aim

Population health	Life expectancy Men	73.03 years (2017)
	Life expectancy Women	79.17 years (2017)
	Life expectancy Total	76.01 years (2017)
	Adult affiliates from the network between July and November of 2018	88.6% rated their health as positive (good, very good, excellent)
	Prevalence of Diabetes	Total population: 2.3%
		Over 18 years old: 3.0%
	Prevalence of Hypertension	Total population: 9.7%
		Over 18 years old: 12.7%
	Dyslipidemia	Total population: 0.8%
		Over 18 years old: 1.0%
Experience in care	A sample of 6263 respondents*	Six or more: 91%
		Seven or more: 87%
		Eight or more: 77%
		Nine or more: 55%
Experience of the professionals	A sample of 1016 respondents**	75.3 (2016)
Cost per capita *	Annual expenditure per capita	US $ 856 (2015)
	Monthly expenditure per capita	US $ 71.3 (2015)

* A numerical scale ranging from 0 (the worst experience) to 10 (the best experience) was used.
** A Work Environment Index was generated using a numerical scale ranging from 0 (critical) to 100 (excellent)
*** This was the amount allocated to every person in Colombia in 2015, adjusted for purchasing power parity (PPP). The direct expenditure within the Compensar network was lower as it should exclude government funding for public health campaigns, especially in rural areas.

What needs to be done?

Although there are many reasons for the leaders of this integrated healthcare network to be pleased knowing that 12 of the quality indicators ranked in the top 10 as compared with OECD countries, with one of the lowest levels of expenditure per capita, there is still a long way to go to meet their expectations and the needs of the population they serve. Among the many priorities for the near future, the following are noteworthy:

- The explanation and correction of the relatively high prevalence of HIV/AIDS, and maternal, perinatal and neonatal mortality.
- Collection of data about the 42 Health Care Quality Indicators for which the network did not have data available.

- Design and conduct of a study to determine whether the extent to which the data collected in 2016 and 2017 compare with those of years that precede the creation of the network. This would act as an internal validation exercise to judge how much the findings reported here could be attributed to the existence and operation of the network.

- Comparison of the data collected within the network with a matched sample of people affiliated to other insurers and served by the same network members. This would act as an additional internal validation exercise.

- An in-depth analysis of the reasons behind the resistance of the levels of healthcare professional satisfaction over the period of data collection, and the exploration of different strategies to improve them.

- Formal efforts to collect data on other indicators proposed for the expansion of the triple aim, such as joy and meaningfulness associated with work for the healthcare professionals, patient and healthcare professional engagement, or even health equity and “readiness” (18–23).

In addition, in keeping with the strategic goal of Compensar, which is to become a platform for integral well-being, the network has a unique opportunity to capture self-reported data on this construct, well-being, and to examine its value as dependent and independent variable in relation to the formal OECD performance indicators.

By being the first example of the assessment of the performance of a network as a country, Compensar EPS and its partners are keen to share the methodology used in this evaluation with its peers within the Colombian insurance community and with the Ministry of Health and other territorial jurisdictions, in order to save them time during efforts to assess the performance of other initiatives to coordinate services across traditional boundaries. This methodology could also contribute to enrich ongoing research on how to evaluate networks throughout the world, to encourage systematic network-to-network benchmarking and collaboration globally, and to position high-performance networks as models for the improvement of national healthcare systems, worldwide.

References

1. **Papanicolas I, Jha AK.** Challenges in International Comparison of Health Care Systems. JAMA. 2017 Aug 8;318(6):515–6.

2. **World Health Organization.** The World Health Report 2000: Health Systems : Improving Performance. World Health Organization; 2000. 215 p.

3. **Schütte S, Acevedo PNM, Flahault A.** Health systems around the world - a comparison of existing health system rankings. J Glob Health. 2018 Jun;8(1):010407.

4. **Navarro V.** Assessment of the World Health Report 2000. Lancet. 2000 Nov 4;356(9241):1598–601.

5. **About the OECD [Internet].** OECD. [cited 2018 Sep 10]. Available from: http://www.oecd.org/about/

6. **Mattke S, Epstein AM, Leatherman S.** The OECD Health Care Quality Indicators Project: history and background. Int J Qual Health Care. 2006 Sep;18 Suppl 1:1–4.

7. **Arah OA, Westert GP, Hurst J, Klazinga NS.** A conceptual framework for the OECD Health Care Quality Indicators Project. Int J Qual Health Care. 2006 Sep;18 Suppl 1:5–13.

8. **Kelley E, Hurst J.** Health care quality indicators project conceptual framework paper. thuvienso.thanglong.edu.vn; 2006.

9. **Expert Group on Health Systems Performance Assessment.** Tools and methodologies to assess integrated care in Europe [Internet]. European Union; 2017. Available from: https://ec.europa.eu/health/sites/health/files/systems_performance_assessment/docs/2017_blocks_en_0.pdf

10. **Carinci F, Van Gool K, Mainz J, Veillard J, Pichora EC, Januel JM, et al.** Towards actionable international comparisons of health system performance: expert revision of the OECD framework and quality indicators. Int J Qual Health Care. 2015;27(2):137–46.

11. **Rotar AM, van den Berg MJ, Kringos DS, Klazinga NS.** Reporting and use of the OECD Health Care Quality Indicators at national and regional level in 15 countries. Int J Qual Health Care. 2016 Jun;28(3):398–404.

12. **Perić N, Hofmarcher-Holzhacker MM, Simon J.** Health system performance assessment landscape at the EU level: a structured synthesis of actors and actions. Arch Public Health. 2017 Jan 30;75:5.

13. **Saturno-Hernández PJ, Martínez-Nicolás I, Poblano-Verástegui O, Vértiz-Ramírez J de J, Suárez-Ortiz EC, Magaña-Izquierdo M, et al.** Implementation of quality of care indicators for third-level public hospitals in Mexico. Salud Publica Mex. 2017 May;59(3):227–35.

14. **Pollmanns J, Romano PS, Weyermann M, Geraedts M, Drösler SE.** Impact of Disease Prevalence Adjustment on Hospitalization Rates for Chronic Ambulatory Care-Sensitive Conditions in Germany. Health Serv Res. 2018 Apr;53(2):1180–202.

15. **Country Profiles [Internet].** United Nations. [cited 2018 Oct 21]. Available from: http://www.un.org/esa/population/publications/countryprofile/profile.htm

16. **OECD.** Population [Internet]. [cited 2018 Oct 28]. Available from: https://stats.oecd.org/Index.aspx?DatasetCode=POP_FIVE_HIST

17. **The Triple Aim Journey: Improving Population Health and Patients' Experience of Care, While Reducing Costs [OVERVIEW].** Available from: https://www.commonwealthfund.org/sites/default/files/documents/___media_files_publications_case_study_2010_jul_triple_aim_v2_1421_mccarthy_triple_aim_journey_overview.pdf

18. **Feeley D.** The Triple Aim or the Quadruple Aim? Four Points to Help Set Your Strategy [Internet]. Institute for Healthcare Improvement. 2017 [cited 2018 May 4]. Available from: http://www.ihi.org/communities/blogs/the-triple-aim-or-the-quadruple-aim-four-points-to-help-set-your-strategy

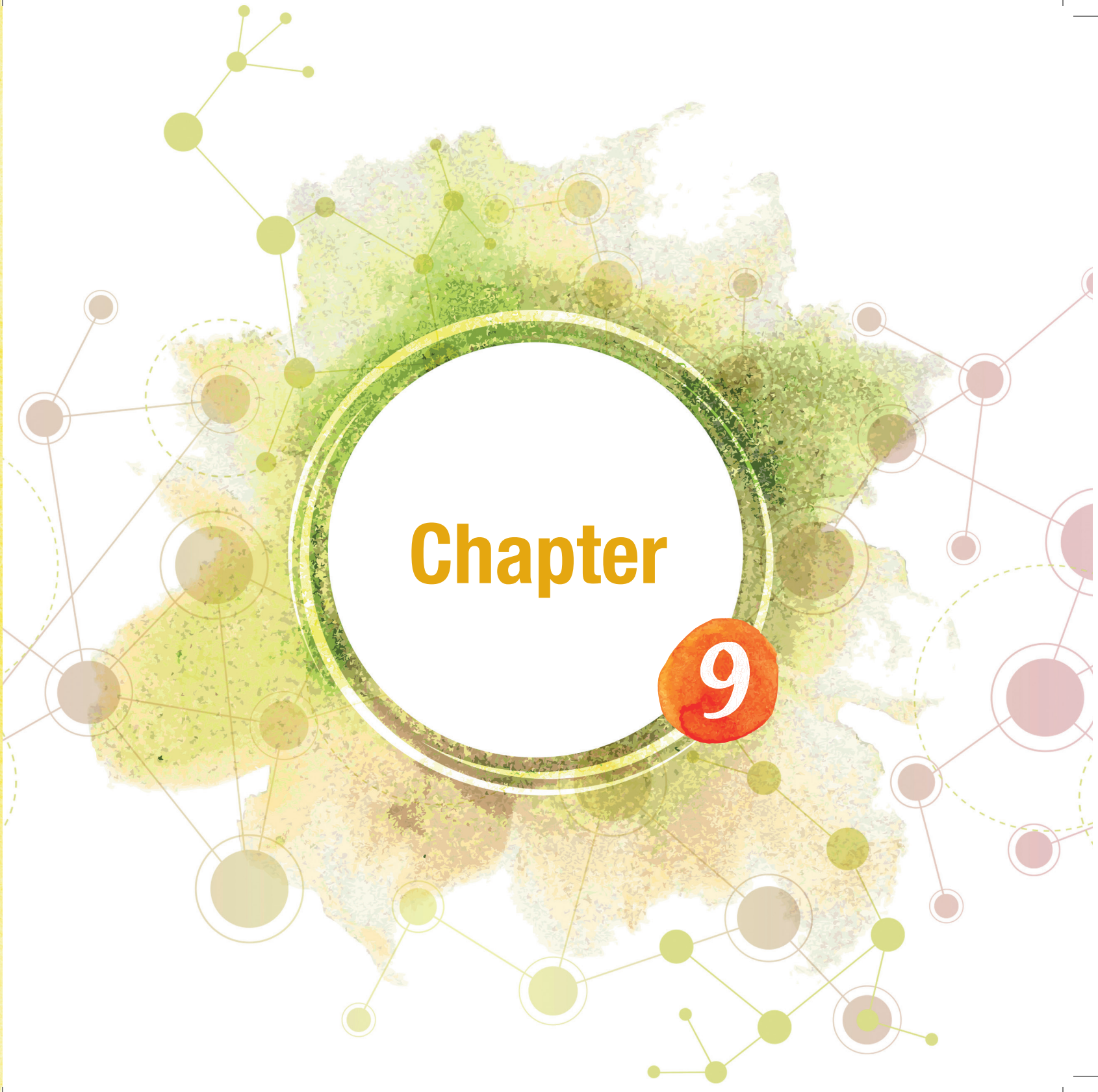
19. **William Jackson Epperson MD MBA, Facmpe SFC, Wilhoit G.** Provider burnout and patient engagement: the quadruple and quintuple aims. J Med Pract Manage. 2016;31(6):359.

20. **Bodenheimer T, Sinsky C.** From triple to quadruple aim: care of the patient requires care of the provider. Ann Fam Med. 2014 Nov;12(6):573–6.

21. **Smith DJ, Bono RC, Slinger BJ.** Transforming the Military Health System. JAMA. 2017 Dec 26;318(24):2427–8.

22. **Sikka R, Morath JM, Leape L.** The Quadruple Aim: care, health, cost and meaning in work. BMJ Qual Saf. 2015 Oct;24(10):608–10.

23. **Coleman K, Wagner E, Schaefer J, Reid R, LeRoy L.** Redefining Primary Care for the 21st Century [Internet]. Agency for Healthcare Research & Quality; 2016 Nov [cited 2018 Sep 8]. Available from: https://www.ahrq.gov/professionals/systems/primary-care/workforce-financing/white-paper.html


Chapter
9

Chapter 9

Integration as seen through the eyes of patients and healthcare providers

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Chapter 9

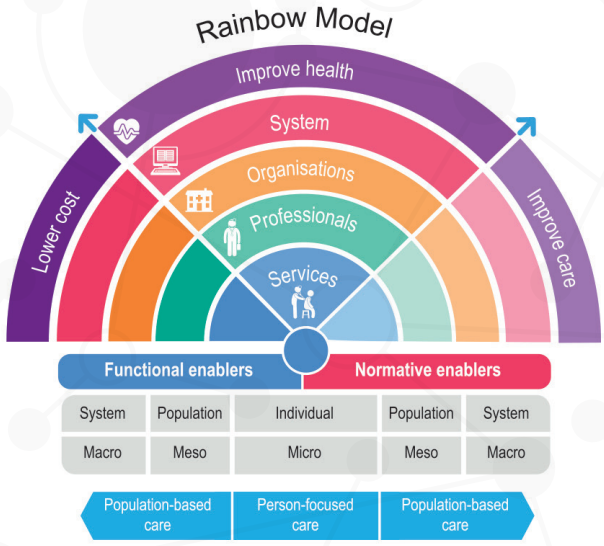
What is the challenge?

Integration of health and social services is widely advocated as a mean for improving the accessibility, affordability and quality of a healthcare system (1–3), especially for the increasing numbers of people suffering from multimorbidity (4–11). Chronic kidney disease (CKD) is an example of a condition that almost universally occurs in individuals with other comorbidities, such as hypertension, diabetes, and cardiovascular conditions. Evidence points out that nearly 85% of those with CKD have two or more chronic conditions (12). These patients are often poorly served by current disease-focused service delivery approaches, mainly because they do not adequately coordinate care across different service providers and care settings. Several studies have indicated that end-stage CKD patients experience multiple obstacles like communication barriers, suboptimal care coordination, polypharmacy, delay in referral to nephrologist, lack of planned renal replacement therapy (RRT) initiation and lack of a clear delineation of responsibilities among providers (13–15).

The fragmented care experienced by CKD patients is rooted in the complex interplay of disjointed regulatory frameworks, guidelines, incentives and medical curricula that have evolved over decades. Hence, many countries are challenged to develop new integrated delivery and payment models that effectively manage care for the CKD population by accounting for their comorbid conditions (16). As noted throughout this book, the World Health Organization (WHO) describes integrated care as health services that are managed and delivered in a way so that patients receive a continuum of preventive and curative services according to their needs over time that is coordinated across different levels (e.g. clinical, professional, organizational, and system) of the health system (3). A guiding influence for this view was the Rainbow Model of Integrated Care (RMIC), which conceptualizes the different domains of integrated care into a unified model (Figure 9.1). The RMIC outlines four core (person-centeredness; service coordination; professional coordination, and organisational coordination) and four ancillary (community-centeredness, technical competence, cultural competence; and system context) integrated care domains (17). Based on the four core domains, care providers should provide care focused on the person, which continues over time and between visits, and coordinated across professionals and organisations. In addition, the ancillary domains describe that care providers should focus on the health of individuals within their communities, and be able to adapt and develop local partnerships with various stakeholders by demonstrating technical and social competence. The RMIC emphasizes that all integrated care domains are essential to improve health outcomes, patients' experience of care, and efficiency and costs 'Triple Aim' (18). The underlying assumption is that a significant impact on clinical, quality of care, and economic outcomes requires various multiple interacting interventions targeted at multiple clinical, professional, organisational, and system levels (13). To sum up, the RMIC provides a theory which underpins how integrated care efforts (clinical, professional, organisational and system) act at different levels (micro, meso and macro) and can be perceived from multiple stakeholder perspectives (patients, professionals, managers and policymakers) in order to achieve such aim (3,16–19).

Figure 9.1.

Rainbow Model of Integrated Care (RMIC)



DOMAINS	DESCRIPTION	EXAMPLE	CHALLENGES
System	Influence of law and regulations on care coordinations	Policy and financing	Legislation and regulations concerning data usage across care providers
Organisations	Coordination of care among different organisational units	Disease management	Lack of integrated revenues and business model across organisations
Professionals	Coordination of care among different care providers	Multidisciplinary care	Ambiguity about professional roles and responsibilities
Services	Coordination of care at the individual patient level	Self-management	Lack of patient portals and integrated eHealth applications
Normative enablers	Supporting culture for care coordination activities	Change management	Lack of inter-sectorial training and educational for care providers
Functional enablers	Supporting infrastructure for care coordination activities	Interoperable electronic medical records	Use of different registration methods across providers
Population-based care	Community oriented care coordination activities	Preventive screening and education	Lack of community oriented financing and contracting models
Person-focused care	Care tailored to people's need and values	Care management	Knowledge about (non-medical) patient needs

Source: Adapted from (13,16,17,24,36).

Rainbow Model of Integrated Care. Adapted with permission from: Integrated Care Evaluation, Essenburgh Research & Consultancy (22).

Against this background, it is concerning that there are few studies investigating whether effectiveness of integrated care approaches might differ between types of strategies as described by the RMIC. Integrated care approaches are often evaluated as a 'black box', with little understanding of key ingredients that might have an impact on the Triple Aim outcomes (16,23–26). Findings from a recent systematic review, for instance, indicate that there is a lack of evidence around the combination of interventions at the clinical (e.g., self- management, case management), professional (e.g., multidisciplinary care, continuity of care), organizational (e.g., disease management, managed care programs), or system (e.g. healthcare policies and regulations) level in terms of their effect on outcomes related to the Triple Aim for patients with CKD (20). The review highlighted the need for a validated and comprehensive measure of integrated care. This is considered critical to understanding which care models work, for whom and how in the unique setting where they are implemented. Assessing integrated care in a rigorous way would also help policymakers, managers and professionals to identify key areas of improvement as they deliver services as described by the RMIC.

Obviously, evaluating, measuring and monitoring the experience of patients is considered key to improving integrated care strategies (27), as they are the only ones who are present during every step of their (dis)connected journey through the healthcare system, giving them a unique perspective. They are considered the best judges of whether they receive an integrated care trajectory. Ideally, patient experience measures should be derived from validated survey questionnaires, which are also called 'patient-reported experience measures' (PREM), and complement conventional indicators derived from clinical and administrative data (28–30). At the same time, a thorough evaluation of an integrated care approach should also take into account all levels and stakeholder perspectives, as described by the RMIC.

Available health system performance assessment tools, unfortunately, do not contain representative integrated care indicators (27). Consequently, having standardized, validated instruments that measure patients' as well as providers' perceptions of integrated care are increasingly recognized as essential quality assessment efforts. For example, assessing integrated care through the patients' and care providers' eyes can provide powerful insight into the strengths and weaknesses of a dialysis clinic,

while providing valuable insights about the performance of more comprehensive efforts to align services provided within a network. It also provides opportunities to fill wide gaps in knowledge about the extent of integration between clinics, networks and countries for benchmarking purposes.

What is the opportunity?

Integrated care research is criticised for its methodological problems relating to its measurement. Several authors have proposed different assessment approaches, such as the network matrix integration measurement (31), the three levels of integration between medical and social services (linkage, coordination and full integration) (32), the micro assessment tool, among many others (33). However, a review of 379 validation studies showed that only a few tools were reliable and valid (34). Moreover, it was noted that none of the proposed methods capture all domains as described by the RMIC. The majority of instruments assessing integrated care have significant limitations regarding the comprehensiveness, psychometric quality, and length for use in routine practice. As a result, a literature review and two international Delphi studies were conducted to develop a validated measurement tool for assessing integrated care based on the RMIC, known as the RMIC Measurement Tool (RMIC-MT) (35). The RMIC-MT patient and provider survey questionnaires have been developed as generic instruments to assess integrated care. The patient survey allows the assessment of care integration experiences, including shared-decision making, patient-physician relationship, multidisciplinary

collaboration, and coordination of care. The provider survey asks care providers questions about how they perceive their clinics' ability to deliver integrated care, including needs assessment, population screening, personal care plan, referral management, multidisciplinary teamwork, interoperable medical records, and collaborative culture. Both instruments, which were launched in 2017, are available in 13 different languages and benefit from validation in a study representing a statistically representative survey sample over 30,000 CKD patients and renal care providers (36). The study data provided a unique insight into the patients' as well as providers' perceptions of integration within 19 countries, and provided solid foundations for subsequent comparative studies between clinics, organizations and countries.

The rigour of the development of the RMIC-MT and the availability of international data motivated Compensar EPS to commission a study of the perceptions of patients receiving RRT through its network of providers in Colombia. This provides a unique opportunity to contribute independent assessments of the performance of such network, complementing other efforts described throughout this book, and to benchmark its work internationally.

The experience of patients is considered the key to improving integrated care strategies

What has been achieved?

Both versions of the online RMIC-MT were distributed to the totality of the population of providers and patients involved in dialysis clinics within the Compensar EPS network. A total of 199 renal care providers and 310 CKD patients in 8 dialysis clinics were invited to participate by an independent polling organization. Of these, 284 CKD patients (92 % response rate) and 173 care providers (87% response rate) completed the questionnaires. The response rate was extremely high across patients (+35%) and care providers (+17%) of the Compensar network as compared with the response rate within the global renal care study (36). A small majority of patients were male (58%, n=165), and the majority of care providers were nurses (38%, n=68) (Table 9.1).

The assessment of the patients' experience of integrated care revealed that a substantial

Table 9.1.

Characteristics of the study sample

VARIABLE		VALUE
CKD patients		**284**
Gender , n (%)	• Male	165 (58.1)
	• Female	106 (37.3)
Marital status, n (%)	• Married	110 (38.7)
	• Single	171 (60.2)
Self-reported health status, n (%)	• Very good	44 (15.5)
	• Good	134 (47.2)
	• Fair	77 (27.1)
	• Poor	19 (6,7)
	• Very Poor	8 (2.8)
Work status, n (%)	• Employed	40 (14.1)
	• Unemployed and looking for work	8 (2.8)
	• In full time education	4 (1.4)
	• Unable to work due to long term sickness	84 (29.6)
	• Looking after family	51 (18)
	• Retired	45 (15.8)
	• Other	50 (17.6)
Care providers		**173**
Job position, n (%)	• Nephrologist	16 (9.0)
	• Nurse	68 (38.4)
	• Dietician	5 (2.8)
	• Social worker	5 (2.8)
	• Endocrinologist	1 (0.6)
	• Management & administration	18 (33.9)
	• Other	60 (33.9)

proportion (48%) perceived it as negative (Table 9.2), a figure that is lower than that reported by CKD patients in the 19 other countries involved in the international study (36). When ranking the patient experience scores across countries, CKD patients of the Compensar network had the second lowest service coordination experience after France. Nevertheless, such experiences ranked similar to other South American countries like Uruguay and Chile.

Table 9.2.

Patients' integrated care experiences

INTEGRATED CARE DOMAINS	No. Of items	COMPENSAR EPS STUDY				
		Mean	SD	% nE	Highest value (Compensar EPS clinics)	Lowest value (Compensar EPS clinics)
Overall integrated care experience	22	4	0,48	48	4.5 (Chía)	3.8 (San Rafael & Santa Clara)
Person-centred care	4	3,71	0,65	36	4.1 (Navarra)	3.4 (Santa Clara)
Service coordination	8	4,09	0,54	23	4.5 (Chía)	3.9 (San Rafael)
Professional coordination	10	4,03	0,5	40	4.6 (Chía)	3.8 (San Rafael)

Source: RMIC-MT patient version (PREM integrated care)

Notes: Scores are based on aggregated scores, and range from 1 (worst) to 5 (best); nE: the proportion of negative experiences based on the median; Overall integrated care experience: the overall provision of person-centred, service and professional coordination of care; Person-centred care: care tailored to people's needs and values; Service coordination: coordination of care at the individual patient level; Professional coordination: coordination of care among different care providers

GLOBAL STUDY (35)			INTERNATIONAL COMPARISON		
Mean (2017)	Highest value (Country)	Lowest value (Country)	Difference compared to global average	Compensar EPS Ranking	Number of countries
4,28	4.5 (Italy)	3.9 (UK)	-0,29	16	19
4,05	4.4 (Italy)	3.6 (UK)	-0,34	17	19
4,37	4.6 (Hungary)	4.1 (France)	-0,28	18	19
4,3	4.6 (Romania)	3.9 (UK)	-0,27	16	19

Care providers, on the other hand, assessed their integration capacities at a higher level as compared with the patients' perceptions of their care coordination experience (Table 9.3). In particular, it was revealed that integrated care processes which were closely related to the clinical encounter (e.g., service and professional care coordination) were rated lower by the patients. This dissimilarity in patient-centeredness scores indicates that care providers think they are respecting their patients' values, and explaining things in a clear manner, while their patients' do not always experience this in practice.

Overall, the care providers of the Compensar network were more positive about their clinics' integrated care abilities as compared to care providers in other countries in the reference sample. Care providers' ratings within the Compensar network ranked first for seven of the integrated care domains compared to other countries. Only the ability to deliver professional and organizational coordination was rated slightly lower compared to other countries.

It is noteworthy that the ability to coordinate care across different care providers and organisational units has a greater variability between the clinics within the Compensar network. This could highlight the fact that the 'backstage' inter-organisational collaboration processes might be more difficult to achieve than the integration processes more closely related to the clinical encounter (e.g., service and professional coordination) as perceived by care providers. Finally, the care providers indicate that the technical (e.g. interoperable electronic health record) and cultural competences (e.g. mutual gains) to enable care integration are in place within the Compensar network. The importance of these 'hard' and 'soft' preconditions has been supported by a large body of evidence (13).

Table 9.3.

Care providers' perceived ability to deliver integrated care

INTEGRATED CARE DOMAINS	No. of items	COMPENSAR EPS STUDY				
		Mean	SD	% nE	Highest value (Compensar clinics)	Lowest value (Compensar clinics)
Overall integrated care experience	46	4,38	0,33	0,47	4.6 (Universidad Nal)	4.2 (San Rafael)
Person-centred care	5	4,69	0,49	0,46	4.8 (Universidad Nal)	4.2 (San Rafael)
Service coordination	7	4,8	0,33	0,46	5.0 (Universidad Nal)	4.7 (San Rafael)
Professional coordination	5	3,49	0,95	0,48	3.9 (Universidad Nal)	3.3 (Santa Clara)
Organisational coordination	5	3,62	0,93	0,44	3.9 (Universidad Nal)	3.2 (San Rafael)
Healthcare policy	7	4,19	0,66	0,46	4.4 (Universidad Nal)	3.9 (Chía)
Community-centred care	4	4,51	0,54	0,5	4.8 (Universidad Nal)	4.2 (Navarra)
Technical competence	5	4,81	0,36	0,33	4.9 (Santa Clara)	4.6 (Chía)
Cultural competence	8	4,67	0,43	0,45	4.9 (Santa Clara)	4.5 (Chía)

Source: RMIC-MT provider version

GLOBAL STUDY (35)			INTERNATIONAL COMPARISON		
Mean (2017)	Highest value (Country)	Lowest value (Country)	Difference compared to global average	Compensar EPS Ranking	Number of countries
3,97	4.2 (Hungary)	3.7 (Sweden)	0,41	1	19
4,32	4.6 (Australia)	4.0 (Poland)	0,37	1	19
4,25	4.6 (Lithuania)	3.7 (Sweden)	0,55	1	19
3,43	3.7 (Romania)	3.1 (Saudi Arabia)	0,07	6	19
3,49	4.3 (New Zealand)	3.1 (Lithuania)	0,13	7	19
3,67	4.0 (New Zealand)	3.2 (Sweden)	0,52	1	19
4	4.3 (Hungary)	3.4 (Poland)	0,51	1	19
4,38	4.8 (Lithuania)	4.0 (Sweden)	0,43	1	19
4,15	4.7 (Kazakhstan)	3.8 (Uruguay)	0,52	1	19

Notes: Results are based on aggregated scores, and range from 1 (worst) to 5 (best); nE = the proportion of negative experiences based on the median; Overall integrated care experience: the overall provision of person-centred, service and professional coordination of care; Person-centred care: care tailored to people's needs and values; Service coordination: coordination of care at the individual patient level; Professional coordination: coordination of care among different care providers; Healthcare policy: influence of healthcare laws and regulations on care coordination activities; Community-centred care: community oriented care coordination activities; Technical competence: supporting infrastructure for care coordination activities; Cultural competence: supporting culture for care coordination activities.

What needs to be done?

The realization of integrated care is an important concern in most countries, and Colombia is no exception. With limited knowledge, funds, human resources and time, stakeholders must decide which strategies have the greatest impact. Typically, this decision-making process is hampered by the lack of comprehensive and validated patients' experience measures on integrated care. The data generated through the use of the Rainbow model provide important insights that could guide the governing body of the network to direct its priority-setting efforts to consolidate the integrate services it provides to CKD patients. Yet, scientific knowledge alone is not enough to drive change. Realizing integrated care depends on people, people that can collaborate in teams inside and outside of their organisations in a context of innovation and trust, two components that are clearly strong within this network.

Ideally, satisfying the holistic needs of people should be the main guiding principle of all levels of the system, where supportive regulatory, legal and financial structures foster innovation according to the needs of and developed with people in their local communities. In this regard, the Compensar network is a thorough, and well-coordinated world-class example of how to develop a sustainable integrated care strategy. Based on the results obtained, the following suggested actions might be valuable to consider as priorities as the network continues to evolve:

- Pursuit of systematic efforts to improve communication among care providers and patients, ideally supported by decision aids aimed at making informed choices during the care process. Investing in individualized care plans, providing self-management support and involving patients in the decision-making process could be useful interventions to improve the patient-centeredness experience of CKD patients.

- Building on the robustness of the network information platform, and the level of interoperability across institutions and professional lines, it would be valuable to develop and introduce multidisciplinary

guidelines and decision support tools to help improve the professional coordination experience of CKD patients, and the level of collaboration among nephrologists, general practitioners, nurses, cardiologists, and psychologists.

- Introducing the RMIC-MT within the ongoing efforts of the network to judge whether it meets the Triple Aim, as well as to facilitate implementation strategies. This is critical for policymakers, managers and professionals to better understand what integrated care strategy works for whom and in which context.

Above all, the fact that patients and care providers have a different area of focus and understanding of what matters in integrated services should provide pause and encouragement to future efforts to promote greater engagement of the affiliates in the evolution of the network model, on network governance and on the evaluation of the provision of care. Unfortunately, too often the experiences of people who visit multiple disconnected care settings, like CKD patients, are neglected despite the availability of studies showing that measurable patient experience can garner support from care providers and payers to encourage a person-centred health culture (37).

Investing in a data-driven, prevention-centred and outcomes-based multidisciplinary practice model is a key aspect to improve the uptake of integrated care in practice. A sustainable execution requires the right balance between top-down as well as bottom-up implementation approaches. The results presented in this chapter might suggest that the bottom-up approach requires more emphasis to further stimulate organised professionalism within the Compensar network.

References

1. **Gröne O, Garcia-Barbero M, WHO European Office for Integrated Health Care Services.** Integrated care: a position paper of the WHO European Office for Integrated Health Care Services. Int J Integr Care [Internet]. 2001;1:e21. Available from: https://www.ncbi.nlm.nih.gov/pubmed/16896400

2. **Kodner DL. All together now: a conceptual exploration of integrated care.** Healthc Q [Internet]. 2009;13 Spec No:6–15. Available from: https://www.ncbi.nlm.nih.gov/pubmed/20057243

3. **World Health Organization.** WHO global strategy on integrated people-centred health services 2016-2026. Geneva: WHO. 2015;

4. **Barnett K, Mercer SW, Norbury M, Watt G, Wyke S, Guthrie B.** Epidemiology of multimorbidity and implications for health care, research, and medical education: a cross-sectional study. Lancet [Internet]. 2012 Jul 7;380(9836):37–43. Available from: http://dx.doi.org/10.1016/S0140-6736(12)60240-2

5. **Anderson G, Hopkins J.** The latest disease burden challenge. In: OECD, editor. Health reform: Meeting the challenge of ageing and multiple morbidities [Internet]. Organisation for Economic Cooperation and Development (OECD); 2011. p. 15–35. Available from: https://www.oecd-ilibrary.org/social-issues-migration-health/health-reform/the-latest-disease-burden-challenge_9789264122314-4-en

6. **Lehnert T, Heider D, Leicht H, Heinrich S, Corrieri S, Luppa M, et al.** Health care utilization and costs of elderly persons with multiple chronic conditions. Med Care Res Rev [Internet]. 2011;68(4):387–420. Available from: https://journals.sagepub.com/doi/abs/10.1177/1077558711399580

7. **Bähler C, Huber CA, Brüngger B, Reich O.** Multimorbidity, health care utilization and costs in an elderly community-dwelling population: a claims data based observational study. BMC Health Serv Res [Internet]. 2015 Jan 22;15:23. Available from: http://dx.doi.org/10.1186/s12913-015-0698-2

8. **Picco L, Achilla E, Abdin E, Chong SA, Vaingankar JA, McCrone P, et al.** Economic burden of multimorbidity among older adults: impact on healthcare and societal costs. BMC Health Serv Res [Internet]. 2016 May 10;16:173. Available from: http://dx.doi.org/10.1186/s12913-016-1421-7

9. **Zulman DM, Pal Chee C, Wagner TH, Yoon J, Cohen DM, Holmes TH, et al.** Multimorbidity and healthcare utilisation among high-cost patients in the US Veterans Affairs Health Care System. BMJ Open [Internet]. 2015 Apr 16;5(4):e007771. Available from: http://dx.doi.org/10.1136/bmjopen-2015-007771

10. **Schneider KM, O'Donnell BE, Dean D.** Prevalence of multiple chronic conditions in the United States' Medicare population. Health Qual Life Outcomes [Internet]. 2009 Sep 8;7:82. Available from: http://dx.doi.org/10.1186/1477-7525-7-82

11. **Van Oostrom SH, Picavet HSJ, de Bruin SR, Stirbu I, Korevaar JC, Schellevis FG, et al.** Multimorbidity of chronic diseases and health care utilization in general practice. BMC Fam Pract [Internet]. 2014 Apr 7;15(1):61. Available from: https://doi.org/10.1186/1471-2296-15-61

12. **Stevens LA, Li S, Wang C, Huang C, Becker BN, Bomback AS, et al.** Prevalence of CKD and comorbid illness in elderly patients in the United States: results from the Kidney Early Evaluation Program (KEEP). Am J Kidney Dis [Internet]. 2010 Mar;55(3 Suppl 2):S23–33. Available from: http://dx.doi.org/10.1053/j.ajkd.2009.09.035

13. **Valentijn PP, Biermann C, Bruijnzeels MA.** Value-based integrated (renal) care: setting a development agenda for research and implementation strategies. BMC Health Serv Res [Internet]. 2016 Aug 2;16:330. Available from: http://dx.doi.org/10.1186/s12913-016-1586-0

14. **Kang H, Nembhard HB, Curry W, Ghahramani N, Hwang W.** A systems thinking approach to prospective planning of interventions for chronic kidney disease care. Health Systems [Internet]. 2017 Jul 1;6(2):130–47. Available from: https://doi.org/10.1057/hs.2015.17

15. **Fishbane S, Hazzan AD, Halinski C, Mathew AT.** Challenges and opportunities in late-stage chronic kidney disease. Clin Kidney J [Internet]. 2015 Feb;8(1):54–60. Available from: http://dx.doi.org/10.1093/ckj/sfu128

16. **Valentijn PP.** Rainbow of Chaos: A study into the Theory and Practice of Integrated Primary Care. Int J Integr Care [Internet]. 2016 May 3;16(2):e010. Available from: http://www.ijic.org/articles/10.5334/ijic.2465/

17. **Valentijn PP, Schepman SM, Opheij W, Bruijnzeels MA.** Understanding integrated care: a comprehensive conceptual framework based on the integrative functions of primary care. Int J Integr Care [Internet]. 2013 Jan;13:e010. Available from: https://www.ncbi.nlm.nih.gov/pubmed/23687482

18. **Berwick DM, Nolan TW, Whittington J.** The triple aim: care, health, and cost. Health Aff [Internet]. 2008 May;27(3):759–69. Available from: http://dx.doi.org/10.1377/hlthaff.27.3.759

19. **Goodwin N.** Understanding integrated care: a complex process, a fundamental principle. Int J Integr Care [Internet]. 2013 Jan;13:e011. Available from: https://www.ncbi.nlm.nih.gov/pubmed/23687483

20. **Valentijn PP, Pereira FA, Ruospo M, Palmer SC, Hegbrant J, Sterner CW, et al.** Person-Centered Integrated Care for Chronic Kidney Disease: A Systematic Review and Meta-Analysis of Randomized Controlled Trials. Clin J Am Soc Nephrol [Internet]. 2018 Mar 7;13(3):375–86. Available from: http://dx.doi.org/10.2215/CJN.09960917

21. **Valentijn PP, Vrijhoef HJM, Ruwaard D, Boesveld I, Arends RY, Bruijnzeels MA.** Towards an international taxonomy of integrated primary care: a Delphi consensus approach. BMC Fam Pract [Internet]. 2015 May 22;16:64. Available from: http://dx.doi.org/10.1186/s12875-015-0278-x

22. **Essenburgh.** Rainbow Model of Integrated Care [Internet]. [cited 2018 Nov 11]. Available from: https://www.essenburgh.com/rainbow-model-of-integrated-care

23. **Pimouguet C, Le Goff M, Thiébaut R, Dartigues JF, Helmer C.** Effectiveness of disease-management programs for improving diabetes care: a meta-analysis. CMAJ [Internet]. 2011 Feb 8;183(2):E115–27. Available from: http://dx.doi.org/10.1503/cmaj.091786

24. **Powell Davies G, Williams AM, Larsen K, Perkins D, Roland M, Harris MF.** Coordinating primary health care: an analysis of the outcomes of a systematic review. Med J Aust [Internet]. 2008 Apr 21;188(8 Suppl):S65–8. Available from: https://www.ncbi.nlm.nih.gov/pubmed/18429740

25. **Drewes HW, Steuten LMG, Lemmens LC, Baan CA, Boshuizen HC, Elissen AMJ, et al.** The effectiveness of chronic care management for heart failure: meta-regression analyses to explain the heterogeneity in outcomes. Health Serv Res [Internet]. 2012 Oct;47(5):1926–59. Available from: http://dx.doi.org/10.1111/j.1475-6773.2012.01396.x

26. **Elissen AMJ, Steuten LMG, Lemmens LC, Drewes HW, Lemmens KMM,** Meeuwissen JAC, et al. Meta-analysis of the effectiveness of chronic care management for diabetes: investigating heterogeneity in outcomes. J Eval Clin Pract [Internet]. 2013 Oct;19(5):753–62. Available from: http://dx.doi.org/10.1111/j.1365-2753.2012.01817.x

27. **Solinís RN, Stein K.** Measuring integrated care--The quest for disentangling a Gordian knot. Int J Integr Care [Internet]. 2016;16(3). Available from: https://ijic.ubiquitypress.com/articles/10.5334/ijic.2525/

28. **Üstün TB, Chatterji S, Villanueva M, Bendib L, Çelik C, Sadana R, et al.** WHO multi-country survey study on health and responsiveness. Geneva: World Health Organization [Internet]. 2001; Available from: http://www.who.int/entity/responsiveness/papers/gpediscpaper37.pdf?ua=1

29. **Jenkinson C, Coulter A, Bruster S, Richards N, Chandola T.** Patients' experiences and satisfaction with health care: results of a questionnaire study of specific aspects of care. Qual Saf Health Care [Internet]. 2002 Dec;11(4):335–9. Available from: https://www.ncbi.nlm.nih.gov/pubmed/12468693

30. **Bleich SN, Ozaltin E, Murray CKL.** How does satisfaction with the health-care system relate to patient experience? Bull World Health Organ [Internet]. 2009 Apr;87(4):271–8. Available from: https://www.ncbi.nlm.nih.gov/pubmed/19551235

31. **Browne G, Roberts J, Gafni A, Byrne C, Kertyzia J, Loney P.** Conceptualizing and validating the human services integration measure. Int J Integr Care [Internet]. 2004 May 19;4:e03. Available from: https://www.ncbi.nlm.nih.gov/pubmed/16773145

32. **Leutz WN.** Five laws for integrating medical and social services: lessons from the United States and the United Kingdom. Milbank Q [Internet]. 1999;77(1):77–110, iv – v. Available from: https://www.ncbi.nlm.nih.gov/pubmed/10197028

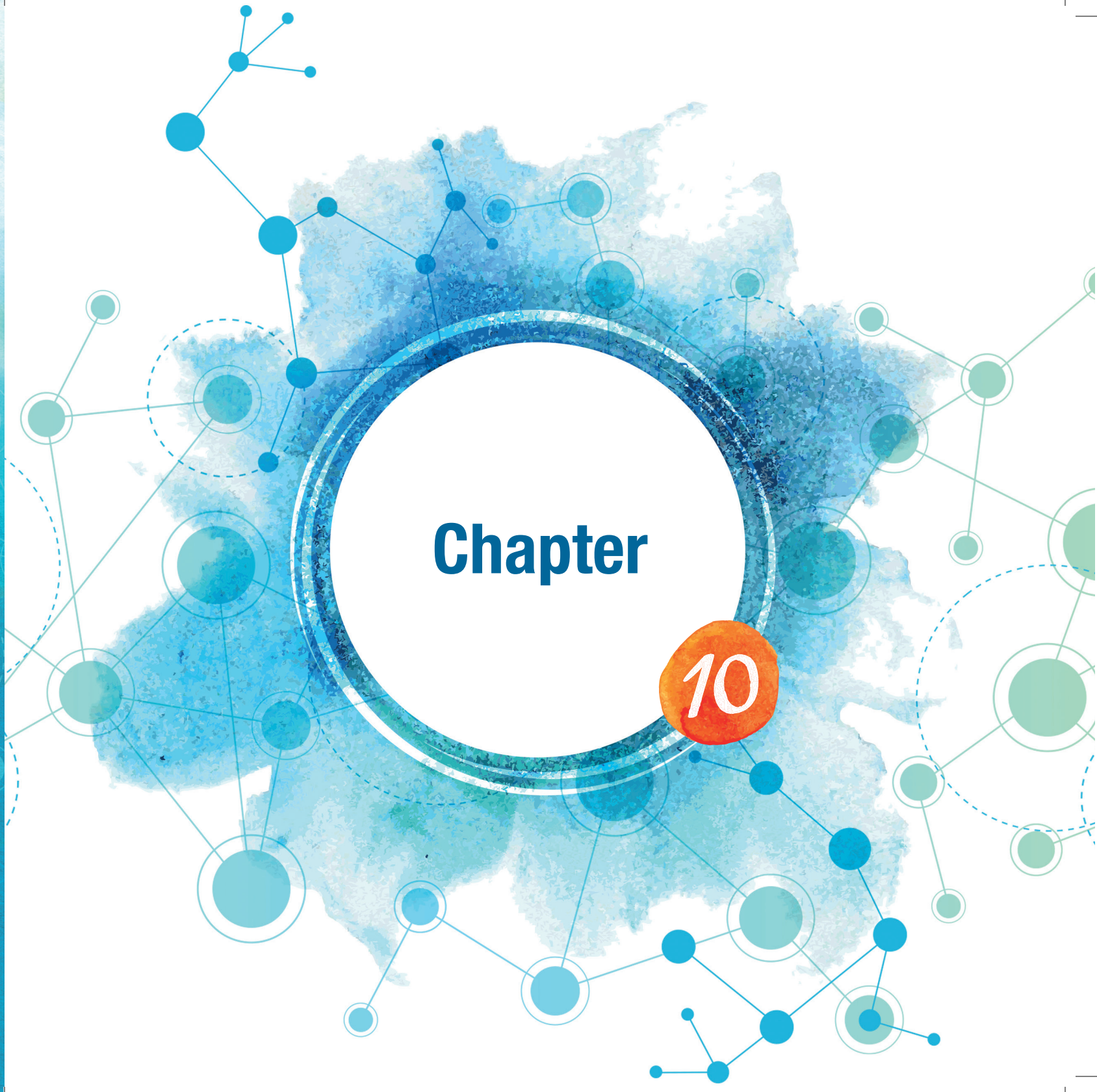
33. **Suter E, Hyman M, Oelke N.** Measuring key integration outcomes: a case study of a large urban health center. Health Care Manage Rev [Internet]. 2007 Jul;32(3):226–35. Available from: http://dx.doi.org/10.1097/01.HMR.0000281624.43611.dd

34. **Bautista MAC, Nurjono M, Lim YW, Dessers E, Vrijhoef HJ.** Instruments Measuring Integrated Care: A Systematic Review of Measurement Properties. Milbank Q [Internet]. 2016 Dec;94(4):862–917. Available from: http://dx.doi.org/10.1111/1468-0009.12233

35. **Valentijn P, Angus L, Boesveld I, Nurjono M, Ruwaard D, Vrijhoef H.** Validating the Rainbow Model of Integrated Care Measurement Tool: results from three pilot studies in the Netherlands, Singapore and Australia. Int J Integr Care [Internet]. 2017;17(3). Available from: https://ijic.ubiquitypress.com/articles/10.5334/ijic.3203/?toggle_hypothesis=on

36. **P.P.Valentijn, F. Pereira, C.W. Sterner, H.J.M. Vrijhoef, D. Ruwaard, J. Hegbrant, et al.** The development and validation of the Rainbow Model of Integrated Care Measurement Tools to assess patients' experience and providers' perceptions of integrated renal care.

37. **Institut de la statistique du Québec.** Measuring patient experience through surveys: from concepts to best practices [Internet]. 200, chemin Sainte-Foy Québec, QC G1R 5T4; Available from: http://www.stat.gouv.qc.ca/statistiques/sante/services/generale/mesure-experience-patient_an.pdf


Chapter
10

“The part can never be well unless the whole is well.”
Plato

Chapter

10

From a network of integrated health services to an ecosystem for comprehensive well-being

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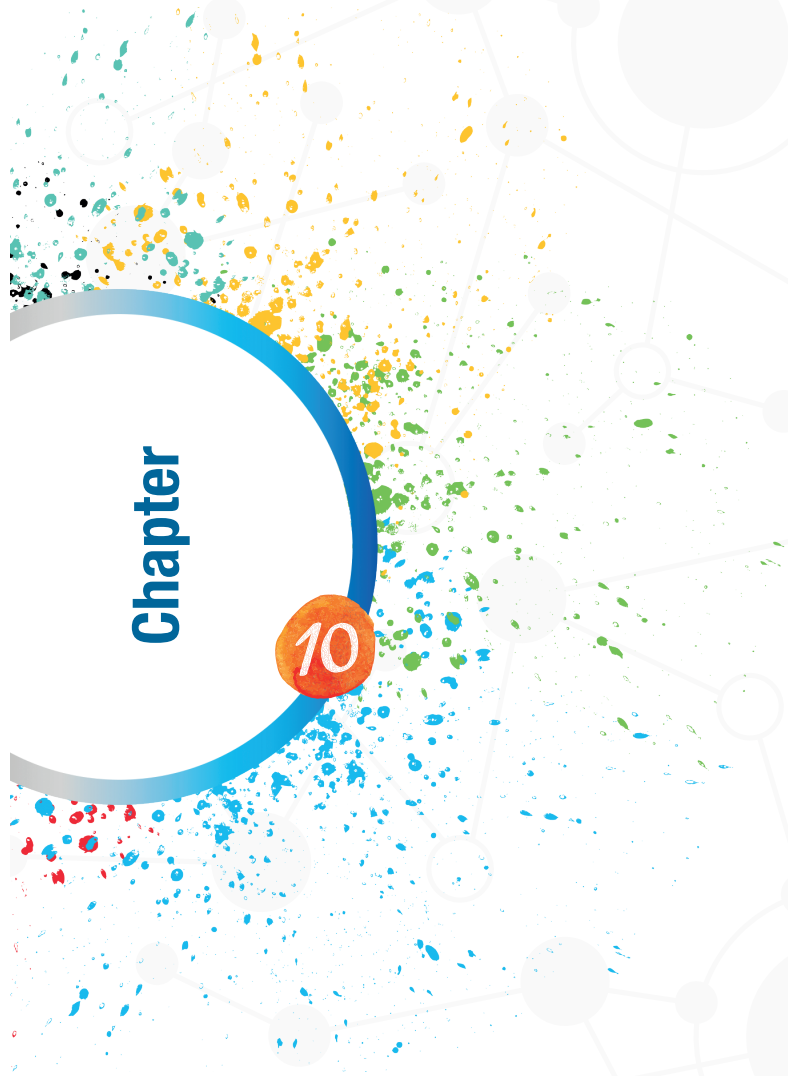

What is the challenge?

Fully-integrated healthcare networks would only be regarded as successful if they enable all of their members - employees and beneficiaries - to maximize their ability to adapt to and manage the inevitable physical, mental and social challenges they would face throughout their lives. Most integrated networks, however, focus on medical services targeting physical challenges, which meet people's needs and expectations mostly when they are able to cure acute conditions. It has been shown, for instance, that integrated care networks have little or no effect on satisfaction levels of frail elderly people or their caregivers, parents of children with special needs, or patients living with heart disease at home or with multiple complex chronic conditions, and at best moderate benefits for people with comorbid mental illnesses (1–8).

Going beyond the physical domain, almost inevitably, opens the doors to integrated healthcare networks to expand their scope beyond medical offerings, to establish partnerships with providers of social services, as a minimum, or to incorporate activities specifically devoted to promoting mental and social well-being as part of their core functions.

The provision of medical and social services to the same group of people, especially the elderly, children with disabilities or those living with complex, debilitating chronic conditions is the norm in most societies. Nevertheless, in most instances, such services are offered by professionals from related but independent organizations that have no or little integration among them. Sometimes, this fragmentation, often compounded by competition for limited resources or control, can lead to more harm than good, in the form of preventable errors, long waiting times, insufficient access, higher costs and poorer quality (9).

It has been known for decades that achieving meaningful integration of medical and social services is hindered by lack of clarity as to the appropriate degree of financial and organizational amalgamation, or who should be in charge of the process, or who should control the budget, or what supportive models, structures or functions would be needed, or even how to call the resulting entities (10). The barriers are so strong that integration of medical and social services still continues to be elusive even when it appears to be the only viable option for the humane and efficient management of high-cost, high-risk patients (11).

The incorporation of specific well-being initiatives within the service package offered by integrated healthcare networks might be a more feasible option. Nonetheless, any person or organization willing to pursue this path will soon recognize that there is an immediate hurdle to handle: the lack of conceptual clarity about the meaning of the word 'well-being' itself. The main problem is that, at least since the 18th century, well-being has been closely associated with the satisfaction of human needs, especially those that could be satisfied through financial means (12,13). As a result, for more than two centuries, with few exceptions, economic indicators such as the Gross Domestic Product (GDP) have been deemed to reflect accurately the level of human well-being, both individually and collectively (14).

Despite its obvious flaws, the "economicist" approach to well-being maintained its dominance until the late 1920s, when the Great Depression threatened the survival of capitalism and the power of the small group of individuals who held most of the material wealth in the United States at the time. To avoid what appeared to be an imminent revolution, the richest Americans contributed large sums of money to the government to create a system of benefits to enable the less fortunate to receive what they could no longer obtain through the market, including education, health services, relief during periods of unemployment or pensions (15). This model to protect capitalism was applied and consolidated in Europe after the Second World War through the Marshall Plan. As a result, it became accepted that human well-being was a reflection of the effectiveness of governments to provide social services to the population (16).

After the oil crisis of 1973, the globalization of the economy in the 1980s, and the financial collapse of 2008, an immense pyramid of debt that had been built over decades was progressively transferred from the private sphere to the public sector, making the general population responsible for covering the financial holes that the financial system had created. This reduced the capacity of governments to provide social services and opened the door to the private sector to take them over, making the population increasingly vulnerable to self-interested actors for whom continuous economic growth was the main driver.

As governments were losing their capacity to pretend that their main role was to protect their citizens, they started to give more prominence to subjective approaches to the assessment of well-being, away from the economic indicators they no longer could control. In 2008, France took the first step to reduce the importance of GDP and search for alternatives that could help the government maintain the illusion that it had the capacity to promote social progress, despite the financial crisis. Something similar happened in the United Kingdom in 2010, where a national project was launched to

replace the GDP with general well-being indicators (17). As the financial crisis was gaining momentum, the Organization for Economic Cooperation and Development (OECD) initiated The Global Project on Measuring the Progress of Societies, which became probably the largest effort ever undertaken to take down the GDP from its pedestal (18).

These efforts to divert attention from the material to the psychological revealed something that had been neglected from the outset: the lack of clarity about what well-being means or should mean. This lack of clarity has led to a confusing picture in which well-being is often found entangled with other complex and increasingly used terms, such as happiness or quality of life (19–21). Therefore, the understanding of the concept of well-being should be at the same time clear in the minds of the population and viewed as something much broader than health or economics, while easy to capture in large-scale efforts that could guide policy and practice.

Any person or organization willing to pursue this path will soon recognize that there is an immediate hurdle to handle: the lack of conceptual clarity about the meaning of the word 'well-being' itself.

What is the opportunity?

The fact that understanding well-being as something that can be considered objectively measurable, especially using monetary units or indicators that reflect the purchasing power of individuals and communities is increasingly unacceptable and calls for more humanistic alternatives.

In addition, just as it happened with the meaning of the word "health", the constraints and potential harms associated with the perception of well-being as a state or as something that can be evaluated from the outside leaves the door open to deal with them by regarding well-being as an ability.

The most prominent connection between well-being and ability was made by Amartya Sen in 1979, when he introduced the concept of human capabilities. Sen suggested a little later that we should consider well-being as "the ability to do valuable acts" (22). The limitation of this approach lies in requiering someone to judge to judge what is "valuable", again running the risk of falling back into an economicist paradigm. An approach that might be even more appropriate was proposed by Sumner, who suggested that we consider well-being as: "The ability to judge that our life is going, or is well" (21,22).

This conceptualization, which mirrors that of health, could be considered as our best option to recover the protagonistic role that people must have in their own lives. It could also lead to an analogous approach to self-rating well-being, through a question such as: "In general, how would you rate your well-being, (understood as the ability to judge) that your life is going well: poor, fair, good, very good or excellent?". In turn, the answers to this question would lead to judging the levels of well-being as positive or negative, enabling studies using them as dependent variables to determine what are its true determinants.

Filling many of these gaps might be possible for an organization such as Compensar. As one of Colombia's largest "cajas de compensación familiar", this is a private form of benefit society (or friendly society in British English) that pools financial contributions from over four million

people working at more than 86,000 companies in Bogota and surrounding areas. As other benefit societies, it is part of the national social protection system, which is responsible for regulating the use of the collected resources.The funds are then used to create and offer its affiliates a wide menu of low cost 'well-being' benefits, which include among others, subsidized financial, sports, recreational, educational and housing services. As it has been shown before, these services could be powerful assets to satisfy the needs of people as they seek to maintain their levels of self-reported health as positive, or to improve them if such levels are negative (23). It is likely, although still unproven, that the same resources could in fact contribute to the maintenance or attainment of positive levels of well-being.

Shedding light on the concept, understanding its determinants and assessing the impact of its own services on human well-being is of great interest to Compensar. After all, its overall strategic goal is to become a platform of well-being capable of supporting the integral flourishing of individuals, families, businesses and the community in general, and of responding to their expectations in a dynamic and collaborative way (24).

Against this background, during the celebration of its 40th anniversary in 2018, Compensar made an explicit commitment to invest resources in specific initiatives aimed at promoting a closer alignment between its powerful health and well-being divisions.

Considering well-being as he ability to judge that our life is going, or is well might be our best option to recover the protagonistic role that people must have in their own lives.

What has been done?

The systematic examination of Compensar EPS and its integrated healthcare network, and the evaluation of its performance, which led to most of the contents of this book, offered many favourable conditions to start exploring possibilities to introduce well-being, explicitly, within the model and suite of services offered to their affiliates. One of the clearest options was the introduction of formal assessments of self-reported health and well-being in a sample of 3,965 patients who had received services in July and August of 2018, and 2,349 affiliates who did not seek services during these same months. The data, collected by independent interviewers, yielded results indicating that:

- Of those who sought services, 92.3% considered their well-being and 85.4% regarded their health as positive.
- The figures for those who did not receive services were 91.5% and 93.4%, respectively.

When the results for health and well-being were brought together, the following picture emerged:

	HEALTH +	HEALTH -
WELL-BEING +	86.4%	6.7%
WELL-BEING -	2.2%	4.7%

Exercises like this open many new avenues for inquiry, as it is possible to link these findings with all of the databases with information about each of the participants, in order to identify the determinants of positive self-reported health and well-being for each of the quadrants, and the design and introduction of potential interventions to preserve them or shift them when negative.

The leaders of the organization, as a whole, have also supported an initiative that seeks to transform Compensar into an incubator of innovations to promote optimal levels of health and well-being. This effort, which involves all of the more than 10,000 employees of Compensar and Compensar EPS, builds on the experience gained thanks to the engagement of more than 3,000 employees of the National Federation of Coffee Growers of Colombia in 2016 and 2017. Such collaborative effort led to the co-creation of methods to obtain baseline data on self-reported health and well-being, to map assets that could contribute to optimizing them, and to develop tools to generate individual and collective portfolios to maintain positive levels or improve them whenever negative (23), which required very little adaptation for their use by Compensar.

In keeping with its intention to promote greater alignment and integration between its Health and Well-Being components, Compensar has been supporting projects designed to enhance existing services and programs. A case in point is the creation of an integral well-being centre within one of its service points in southern Bogota, which has been designed as a living laboratory to study and influence the levels of self-reported health and well-being of the large and rapidly-growing community that it attends, and of the professionals serving them.

Compensar has also developed a leading-edge community-based living lab, known as Hogares Soacha, which includes sustainable housing units for 17,000 families within a setting with all of the facilities of a town. Within this setting, community and institutional leaders have joined forces to pursue collaborative projects around a social development program that seeks to foster empowerment and leadership among inhabitants of all ages. Together, they have committed to nurturing scalable social enterprises that could contribute to achieving optimal levels of health and well-being throughout this community and beyond.

In addition, in the northern section of the city, in the town of Chia, a new centre known as San Roque is being built from scratch, designed to provide services to nearly 50,000 affiliates, and to be a testbed for the full integration of health and well-being services delivered digitally.

Community and institutional leaders have joined forces with Compensar to pursue collaborative projects around a social development program that seeks to foster empowerment and leadership among inhabitants of all ages, to achieve optimal levels of health and well-being.

What needs to be done?

Analysis of the data generated by populations like those described above will become the foundation for efforts aimed at gaining a deeper understanding of the meaning of health and well-being, and to guide the development of innovations seeking to enable every person and group to enjoy positive levels in different settings, regardless of the challenges they face. Exercises like these will also feed an entire research agenda that will try to answer questions such as, among others:

- What are the factors that motivate people to seek healthcare services while perceiving their own health and well-being as positive? Conversely, why do people who consider their health and well-being as negative not request services?
- How could the difference be explained between those who report their health as positive and their well-being as negative, and vice versa, their health as negative and their well-being as positive?
- How much would the health and well-being services available at Compensar match the views of affiliates in relation to what they need to maintain their positive levels of self-reported health and well-being, or to elevate them if they are negative?
- How much overlap does exist between the reasons behind self-reported positive or negative health and well-being?
- How do innovations aimed at fostering collaborative work among communities, social sector organizations and governments contribute to social transformation?

This ongoing work will also feed decisions about the development of new products, services, processes and models to promote optimal levels of health and well-being, and sophisticated analyses focused on finding out whether and how such new developments relate to traditional indicators of network performance.

Following the footsteps of efforts that seek to complete a pandemic of health, it would be possible to ponder and develop strategies to encourage the widespread adoption of the new conceptualization of well-being, the use of self-reported well-being as the top indicator for integrated networks, the emergence of well-being-creating services and systems, the identification and scaling up of effective innovations, the creation of movements to promote well-being, and the cultivation of "precision well-being".

These initiatives, independently and collectively, will be offered as signposts to guide others around the world, as we attempt to muster the unprecedented levels of leadership, clear vision, conviction, and willingness to engage in the meticulous work that is needed to see the emergence of systems that are truly devoted to enabling all humans to achieve optimal levels of health and well-being, with wise use of available resources, as part of a flourishing planet.

Considering them as abilities opens the door to innovations seeking to enable every person and group to enjoy positive levels health and well-being in different settings, regardless of the challenges they face.

References

1. **Janse B, Huijsman R, Fabbricotti IN.** A quasi-experimental study of the effects of an integrated care intervention for the frail elderly on informal caregivers' satisfaction with care and support. BMC Health Serv Res. 2014 Mar 29;14:140.

2. **Bruce ML, Sirey JA.** Integrated Care for Depression in Older Primary Care Patients. Can J Psychiatry. 2018 Jul;63(7):439–46.

3. **Busetto L.** Great Expectations: The Implementation of Integrated Care and Its Contribution to Improved Outcomes for People with Chronic Conditions. Int J Integr Care. 2016 Dec 31;16(4):16.

4. **Valentijn PP, Pereira FA, Ruospo M, Palmer SC, Hegbrant J, Sterner CW, et al.** Person-Centered Integrated Care for Chronic Kidney Disease: A Systematic Review and Meta-Analysis of Randomized Controlled Trials. Clin J Am Soc Nephrol. 2018 Mar 7;13(3):375–86.

5. **Hopman P, de Bruin SR, Forjaz MJ, Rodriguez-Blazquez C, Tonnara G, Lemmens LC, et al.** Effectiveness of comprehensive care programs for patients with multiple chronic conditions or frailty: A systematic literature review. Health Policy. 2016 Jul;120(7):818–32.

6. **Lemmens LC, Molema CCM, Versnel N, Baan CA, de Bruin SR.** Integrated care programs for patients with psychological comorbidity: A systematic review and meta-analysis. J Psychosom Res. 2015 Dec;79(6):580–94.

7. **Huffman LC, Brat GA, Chamberlain LJ, Wise PH.** Impact of managed care on publicly insured children with special health care needs. Acad Pediatr. 2010 Jan;10(1):48–55.

8. **Poot AJ, Caljouw MAA, Waard CS de, Wind AW, Gussekloo J.** Satisfaction in Older Persons and General Practitioners during the Implementation of Integrated Care. PLoS One. 2016 Oct 13;11(10):e0164536.

9. **Gröne O, Garcia-Barbero M. Integrated care.** Int J Integr Care [Internet]. 2001; Available from: https://ijic.ubiquitypress.com/articles/10.5334/ijic.28/print/

10. **Leutz WN.** Five laws for integrating medical and social services: lessons from the United States and the United Kingdom. Milbank Q. 1999;77(1):77–110, iv – v.

11. **Feinglass J, Norman G, Golden RL, Muramatsu N, Gelder M, Cornwell T.** Integrating Social Services and Home-Based Primary Care for High-Risk Patients. Popul Health Manag. 2018 Apr;21(2):96–101.

12. **Mandeville B.** The Fable of the Bees; Or, Private Vices, Public Benefits. T. Ostel; 1806. 534 p.

13. **Talavera P.** Economicism and Nihilism in the Eclipse of Humanism. Humanit Rep. 2014 Aug 11;3(3):340–78.

14. **Fox J.** The Economics of Well-Being. Harvard Business Review [Internet]. 2012 Jan 1 [cited 2018 Oct 17]; Available from: https://hbr.org/2012/01/the-economics-of-well-being

15. **Piven FF, Cloward R.** Regulating the Poor: The Functions of Public Welfare. Knopf Doubleday Publishing Group; 2012. 544 p.

16. **Dadkhah K.** The Evolution of Macroeconomic Theory and Policy. Springer Science & Business Media; 2009. 269 p.

17. **Prime Minister's Office, 10 Downing Street.** Britain's wellbeing to be measured [Internet]. GOV.UK. GOV.UK; 2010 [cited 2018 Sep 23]. Available from: https://www.gov.uk/government/news/britains-wellbeing-to-be-measured

18. **Measuring the Progress of Societies [Internet].** OECD. [cited 2018 Oct 17]. Available from: https://www.oecd.org/site/progresskorea/measuringtheprogressofsocieties.htm

19. **Post MWM.** Definitions of quality of life: what has happened and how to move on. Top Spinal Cord Inj Rehabil. 2014 Summer;20(3):167–80.

20. **Davies W.** The Happiness Industry: How the Government and Big Business Sold us Well-Being. Verso Books; 2015. 320 p.

21. **Badhwar NK.** Happiness. In: Fletcher G, editor. The Routledge Handbook Of Philosophy Of Well-Being. Routledge; 2015. p. 307–19.

22. **Sen A.** Capability and Well-Being. In: Nussbaum M, Sen A, editors. The Quality of Life. Oxford: Oxford University Press; 1993.

23. **Jadad AR, Arango A, Sepúlveda JD, Espinal S, Rodríguez D, Wind K, editors.** Unleashing a pandemic of health from the workplace: Believing is seeing. Kindle. Beati Inc; 2017. 235 p.

24. **Compensar.** Informe de Gestión y Sostenibilidad 2017. 2018; Available from: https://www.compensar.com/doc/Informe-GRI-2017.pdf

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- National Clinics - Clínica Centenario
- National Clinics - Clínica San Rafael
- Hospital de San José
- Eusalud
- Clínica Magdalena
- Clínica Juan N Corpas

- Clínica Universidad de La Sabana
- Fundación Cardio Infantil
- Clínica El Bosque
- Hospital de la Misericordia
- Cruz Roja Colombiana
- Asistir Salud
- Mevisalud
- Asmedan
- Andar
- Javesalud
- Unidad Médica Santafé
- SIES Salud
- IPS Rangel
- Idime
- Clínicos
- Imevi
- Compensar Prestación de Servicios de Salud
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- Kayre

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The editors
December 11, 2018

Trusted networks:

The key to achieve world-class health outcomes on a shoestring